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**A Customised Scale for Measuring Retail
Service Quality in a College Shop: A
Context Specific Approach**

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**A thesis submitted in partial fulfillment
of the requirements of the
University of Northumbria at Newcastle
for the degree of
Doctor of Business Administration**

**Research Undertaken in Newcastle
Business School**

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Abstract

The purpose of this research was to modify an existing scale to measure retail service quality in a college shop. This scale was modified based on the retail service quality scale (RSQS) to make it more contexts specific and culturally sensitive for the retail college shop (Al Waha) at Dubai Women's College. It also explores the relationship between the new retail service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits. A total of 424 completed questionnaires obtained from Al Waha customers was used in the analysis for the main study. Principal component analysis was used for scale reduction and multiple regression analysis was used to find associations.

The new modified scale (Al Waha scale) resulted in 22 items across four dimensions: interaction quality, physical aspects, policy and understanding and caring which is a new dimension. The results confirm the association between the four new service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits. The results disclose the importance of age when evaluating physical aspects and caring and commitment dimensions. The study was performed among a very specific demographic sample; generalizations could only be made to similar college shops. Therefore, testing the modified model in other shops outside of the colleges is an area for future research.

By modifying the RSQS scale to be context specific to retail shops in Dubai, this study provides an incremental step towards other scales in the region. This reveals that there are associations between Al Waha scale dimensions and overall service quality, satisfaction, loyalty and frequency of visits. Also, it indicated the importance of age when customers' evaluate physical aspects and caring and commitment dimensions. This scale gives managers a tool to improve service quality at their shops in order to become more competitive.

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award
and that it is all my own work.

Name

Signature

Date

Chapter 1

Introduction

Chapter 1: Introduction

1.1 Background of the study

The magnitude of the service sector has drawn many academics to research service quality, which has led to debates among academics about which are the most important factors of service quality (Chowdhary & Prakash, 2007). There has been little agreement in the marketing literature on the conceptualization of service quality, which has led to disagreements about the best method to measure service quality (Brady & Cronin, 2001). Service quality is difficult to conceptualize and measure because it is an elusive and abstract concept (Lee, 2007), which makes objectivity difficult (Karatepe, Yavas & Babakus, 2005; Ladhari, 2009a; Lin, 2010). This issue occurs because of the four service characteristics: intangibility, heterogeneity, perishability and inseparability (Ladhari, 2009a). The two major conceptualizations of service quality are the American school and Nordic school (Brady & Cronin, 2001), with the American school dominating the literature (O'Neill & Palmer, 2003; Karatepe, Yavas & Babakus, 2005; Prayag, 2007). The American school defines service quality as “the customer’s assessment of the overall excellence or superiority of the service” (Zeithaml, 1988, p.3), while Gronroos (1984) from the Nordic school defines perceived service quality as a consumption process in which the customer is part of the service process that leads to an outcome or result.

The objective of this research study is to modify a scale to measure service quality at a college shop and then to test the relationship between overall service quality, satisfaction, loyalty, frequency of visits and demographic information. However, the process of measuring service quality is cumbersome because the scale must be appropriate to the context and the country. Therefore, the researcher in this study focused on the North American school because it is the dominant school for measuring service quality. The North American school measures service quality by using a scale called the SERVQUAL, which is the most widely used scale (Akbaba, 2006; Albacete-Sa´ez, Fuentes-Fuentes & Llore´ns-Montes, 2007; Stodnick & Rogers, 2008). According to Santouridis, Trivellas and Reklitis (2009, p.223), “The most prominent instrument for service quality measurement among researchers, practitioners and managers is SERVQUAL”. However, in a retail shop that sells a mix of products and services, customers might evaluate service quality differently than in a pure service setting, which suggests the need to use a scale that is specific for store retailing (Vazquez *et al.*, 2001). SERVQUAL was found to be

unsuitable for measuring service quality in a retail shop (Dabholkar, Thorpe & Rentz, 1996a; Mehta, Lalwani & Han, 2000). Therefore, Dabholkar, Thorpe and Rentz, (1996) developed a scale (RSQS) that is more appropriate for measuring service quality in a shop that sells products (Mattila, 1999). The RSQS consists of 17 items from the SERVQUAL scale and 11 new items which were added based on the research carried out by Dabholkar, Thorpe and Rentz, (1996). According to Kumar, Kee and Nansho (2009), scales that are developed for a specific country or context might not be suitable for another country or context because economic and socio-cultures might differ from country to country or even from sector to sector. The RSQS was developed in a Western country; therefore, it might not be suitable for measuring service quality in other countries (Imrie, Cadogan & Mcnaughton, 2002; Gaur & Agrawal, 2006).

Service quality in the United Arab Emirates has had many challenges, especially after the UAE opened its doors to outside investors to buy property in the 2000s. The great influx of tourists into the UAE and the housing boom has made it difficult for many companies to sustain quality; many went for a quick profit instead. In the year 2008 the real estate market has reduced its work force by up to 48% and the banking sector by 24.5%. In 2007, the construction and housing industry accounted for 22% of the total jobs in the UAE, which indicates a reduction of 48% in construction resulting in a reduction of 10% of the total workforce in the UAE ('UAE: All Signs Point To Population Fall,' 2009). In the year 2008, the real estate market had reduced its workforce by up to 48% and the banking sector by 24.5%.

Dubai is known for its luxury housing and hotels; it has built the world's tallest building, Burj Dubai, and the world's biggest mall, Dubai Mall (Zembowicz, 2009). Around 6 million people visit Dubai per year; therefore, the economy is based on tourism and service, and only 3% depends on oil (Zembowicz, 2009). This high volume of visitors has put pressure on the housing and hotel industry in Dubai. Many of the luxury projects and hotels have been put on hold, and this, along with the decrease in oil prices, has decreased inflation to an estimated 2.5% in 2009 after a 12% rate of inflation in 2008 (Zembowicz, 2009). The rapid growth in the city has caused problems with the infrastructure, and the city has become crowded (Zembowicz, 2009). There is fierce competition between companies, and one of the important means to gain competitive advantage is for companies to offer high-quality services (Santouridis, Trivellas & Reklitis, 2009).

1.1.1 The organization where the research is based: Dubai Women's College

The following section gives a brief description of Al Waha shop which is located at Dubai Women's College, part of the Higher Colleges of Technology. The Higher Colleges of Technology (HCT) have an enrollment of more than 16,000 students and around 2,000 staff members. There are 16 campuses for the institution in different cities in the United Arab Emirates which makes it the largest college system in the United Arab Emirates. The HCT offers a 3-year diploma program, a 3-year higher diploma program, and a bachelor's degree program. All programs are taught in English and there is an IELTS requirement before graduation from each program.

The majority of the instructors are expatriates who stay for an average of 4 to 5 years and then move on to other work assignments in this and other countries. Each college has a management style based on the personal philosophy of each college director, which is partially monitored by the Chancellor, Vice Chancellor and Provost through a top-down management style.

Dubai Women's College (DWC) opened in 1988 and moved to its present location in 1998. The new campus has facilities designed to help students in their studies, such as a Learning Resource Center, Library, Career Center, Fitness Center and Student Center. Dubai Women's College has an enrollment of over 2200 students, over 98% being UAE National women. It offers diplomas in Business/IT applications, Higher Diplomas in Business, IT, Health Sciences, (Paramedics, Medical Imaging, Pharmacy, Dental Nursing), and a Bachelor of Business, Education, IT. The vast majority of its students are between the ages of 18 and 23 years old. The college is primarily a female college with the exception of some male students enrolled in a few programs, such as paramedics and dental nursing.

Al Waha started about 9 years ago as a small retail shop in the cafeteria and then moved to the newly constructed Student Center about 4 years ago. The Student Center sees daily foot traffic of about 2000 visitors. Al Waha shares the overall retail space with a coffee shop, a printing and copy center, a travel shop and a bank, as well as Al Jawdah, another student-run business that sells items similar to those sold at Al Waha. Al Waha occupies 2000 sq. feet.

Al Waha's annual sales have been at approximately AED 1,200,000 (£1 = 6 AED) for the last two years, and this year it is projecting a 12% increase in sales, to amount to about

1,300,000. Its best-selling items are mobile telephones and IT accessories, with cosmetics and personal care items also high-selling product categories. Other items sold include stationery, greeting cards, non-carbonated drinks, books, non-prescription contact lenses, personal health items, and items used in the Fitness Center.

Al Waha has in the past acted as a supplier to external vendors including four other colleges in the HCT system, but now supplies only one college, since the other colleges have closed their shops for various reasons. Alternative training venues within the Student Center, such as food vendors, have been explored, but the educational value of these was vastly outweighed by the complicated logistical and regulatory environment of the college and local governments. Al Waha also temporarily acted as a supplier to a local business in the Global Village, an annual theme park and exhibition that coincides with the Dubai Shopping Festival.

The main objective of the shop is to provide authentic work experience for diploma student while making profit. Each academic year approximately, 400 students work in the Retail Classroom as employees. They receive a one-hour orientation and work for about 21 hours over a period of six weeks. They are observed both directly and indirectly over the course of their training period, with this observation including the use of mystery shoppers and telephone enquiries. The students receive hands-on training with real cash and real products from day one, and are subject to total accountability for any errors. Students receive training in cash management, inventory management, customer care, display and merchandising, procurement, marketing, data entry, simple accounting, and telephone skills. They are assessed on the above as well as on such soft skills as maturity, professional behavior, punctuality, problem solving, verbal communications, work ethic, time management, proactive problem solving, and real-time decision making, all with a focus on achievement of concrete results.

Al Waha is open from 8:00am to 4:00pm every day with students volunteering to work extra shifts between 8:00am to 9:00am and 3:00pm to 4:00pm. There are two major shifts a day, one from 8:45 to 12:15pm and another from 11:45am to 3:15pm. The shifts overlap to allow for changeover and counting the cash at the end of each shift. There is a minimum of four students in each shift. Employees work as shift managers, cashiers, back office workers, or customer service representatives. The responsibilities for each of the following jobs are:

Shift Manager

- Be responsive to customers' needs.
- Help solve problems with customers.
- Make sure that employees comply with Al Waha regulations.
- Help cashier with items that do not have a bar code.
- Give 15-minute breaks to all staff per shift.
- Accurately record start, break and end times of all staff.
- Take over the duties of staff during their breaks.
- Assist others where necessary.
- Treat team members professionally.
- Resolve conflicts among the team.

Cashier

- Serve customers in the order they arrive.
- Treat customers equally.
- Learn the keys on the 126-key point-of-sale keyboard/cash till, which has keys for different denominations of telephone cards, stamps, and other items with a high turnover.
- Print receipts only for high-cost items such as mobile phones, up-market skin care items, perfumes and give these to customers. Receipts are also required for interdepartmental purchases.
- Be accountable for any shortages or overages in cash. Student employees must be prepared to explain any differences between their cash intake and the report printed at the end of the shift.
- Keep the counter neat and organized.
- Understand how postage stamps are sold. They should be sold based on the weight of the letter and its destination. The letters must be weighed, and employees must find the destination on the stamp cost table. Stamps are organized by denomination and are located in the drawers on the counter.
- No refunds are entertained.

Back Office

- Use the product database to add products to the system when new products arrive.
- If change is required, assist the cashier in counting the correct amount. If the safe does not have the correct amount, they coins from the cafeteria or coffee shop staff. Often these require at least 24 hours notice, but can help in case of emergency.
- Activate telephone SIM cards from either Etisalat or Du as necessary.
- Perform color printing in the back office for posters or promotional items.
- Send any promotional emails on the Al Waha template. Emails from the Al Waha address must be professional, with no mistakes. Students must use spell check, and follow the correct formats.
- Reply to any information requests by email.
- File all documents in the correct folder, chronologically.

Customer Service and Merchandising

- Display items so as to make the shelf look full. Spacing between items should be suitable, and items should be displayed at the front edge of the shelf.
- Display a suitable quantity of products – a lot of fast-moving items, few slow-moving items.
- Display products in the most attractive way so as to increase sales.
- Reorganize the display as needed when items are not selling.
- Greet the customer.
- Be close enough to the customer to assist them as required, and be far enough away so they will be relaxed.
- Watch for shoplifters, and be sure shoppers see them watching.
- Answer any questions shoppers may have truthfully, and if the answer is unknown, find the answer.
- “Under-promise and over deliver.” Promise less than you can deliver and deliver more than the customer expects.
- Take the name and ID number of any student whose problem cannot be solved, and solve her problem by email before the end of the shift.
- If an item is missing or low in stock, record it in the form “order.”
- Assist back office with pricing using one of three methods: cost plus margin, market rate, or the maximum that the market will bear.
- Help with bar coding, pricing gun, applying labels, physical inventory counting.

- Assist the cashiers during student customers' break times.

A small number of students are also managers, justifying their actions to an external Board of Directors. These students are coached on presentation and communication skills as well as managerial skills. There are six managers: General Manager, Assistant Manager, Marketing Manager, Procurement Manager, Finance Manager, and Operations Manager.

The main challenges for Al Waha are to train all the employees/students properly in the various jobs mentioned above while simultaneously making a profit. There is an emphasis during training on service quality and being friendly with customers. Usually employees of Al Waha have a good relationship with customers because all are UAE nationals.

Another challenge for Al Waha has been theft, but this problem was drastically reduced when more cameras were installed. Al Waha is doing far better than the other student-run business because of its operating hours and the availability of two full-time faculty to help with training and day-to-day operations. Al Waha seems poised to remain a viable business as long as it serves quality products and has superior services.

1.2 Importance of Service Quality

Service quality has drawn the attention of researchers and managers because it is known to reduce costs and increase customer satisfaction, which are usually associated with customer loyalty which leads to increased economic returns for the company (Buttle, 1996; McAdam, McLean & Henderson, 2003; Seth, Deshmukh & Vrat, 2005; Edvardsson, 2005; Bontis & Booker, 2007). Also, service quality was found to have a relationship with repeat purchase intention (Perez *et al.*, 2007; Chen, 2008) and consumption behavior (Dabholkar, Thorpe & Rentz, 1996). Therefore, service quality is a measure of the performance of an organization, which makes it important for both academics and practitioners to consider (Karatepe, Yavas & Babakus, 2005). Research indicates that companies with excellent customer service have reported a 72% increase in profit per employee compared to similar organizations that have poor customer service; it is also five times costlier to attract new customers than to retain existing customers (Cook, 2004).

Service quality survey results can be used by managers to make important marketing decisions and to project the impact of different courses of action (Rust, Danaher & Varki, 2000). Firms might have to invest in finding new customers and/or retaining current customers, depending on the market situation (Bridges & Freytag, 2009). Offensive

marketing involves attracting new customers, while defensive marketing involves keeping existing customers (Athanasopoulos, Gounaris & Stathakopoulos, 2001). Having a defensive marketing strategy is better because it is cheaper to retain existing customers for many reasons, such as lower expenses for advertising to attract new customers with whom it takes time to establish loyalty (Athanasopoulos, Gounaris & Stathakopoulos, 2001). As discussed earlier, providing high levels of service quality is one way to keep customers both satisfied and loyal.

Service quality has become prominent since the 1970s (Lages & Fernandes, 2005) because in many industrialized economies the service sector accounts for more than half of the GDP; this represents the service sector without considering the manufacturing sector, which has also started to provide services (Gupta, McDaniel & Herath, 2005). According to Zeithaml, Bitner and Gremler (2009) employment in the service sector has been larger than in the manufacturing sector in the United States since 1929, with 55% of the labor force working in the service sector; this increased to 82% in 2006, and services represent 80% of the GDP. This is an indication of the magnitude of the service industry and thus the need for high levels of service quality.

1.3 Significance of this study

This research complements and adds to previous research by expanding the study of retail service quality to include a college shop, a sector that has been under-researched.

Therefore, this study is very important because it offers a scale to measure service quality that is suitable for a college shop and which could be modified slightly to include shops outside of the college. From a research standpoint, the present study is important because it modifies a scale to measure service quality in a college shop and then tests the relationships between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographic information. The study will be conducted among undergraduate students at Dubai Women's College who shop at Al Waha, with the majority of the customer sample being young Arab females. This is significant in many ways because previous research has been conducted predominately in Western countries and has rarely included Arab countries. Secondly, there is a lack of research in the area of service quality expectations for young consumers aged 15-24 in developing countries (Kueh & Voon, 2007). Thirdly, a college shop that employs United Arab Emirates (UAE) national students is unusual in this part of the world. Fourthly, there is a lack of research in the region and in the development of specific scales for store retailing. Finally, there are

many studies that investigate the relationship between service quality and customer satisfaction, but only a few studies have investigated the effect of service quality dimensions on satisfaction and loyalty (Jamal & Anastasiadou, 2009). A study by Welsh and Raven (2006) on the importance of service to customers and employees in a retail setting in the Middle East concluded that customers and employees in that region are unique in many ways and that more studies should be done in the Middle East to understand service quality in different cultures.

Students who are customers of the college shop were used to evaluate service quality for this research study. Studies found that student samples are appropriate because the groups of students are homogeneous and students are usually helpful with retail questionnaires (McKenzie, 2008). An example of studies that used university students in their studies to measure service quality are DeMoranville and Bienstock (2003), Snipes, Thomson & Oswald (2006) and Ozdemir and Hewett (2010).

1.4 Personal motivation for the study

Personal motivation for the researcher stems from the fact that retail service quality in Dubai (and the Arab region as a whole) is under-researched, and one area that lacks research is the area of service quality as suggested by Al-Marri, Ahmed and Zairi (2007). Retail service quality in developing countries is different from retail service quality in developed countries which makes comparison a difficult task because retail service quality in developing economies needs time to reach the standard found in developed countries (Merrilees, McKenzie & Miller, 2007). There are a limited number of empirical studies on service quality in the UAE which motivated the researcher to further investigate the conceptualization and measurement of service quality in the region. To the knowledge of the researcher, there are no studies on service quality in retail shops and specialty college shops in the UAE. This motivated the researcher to explore an area with limited empirical research in a region that perhaps would benefit greatly from research in the area of service quality. The development of the retail scale that is specific to the region gives practitioners, as well as researchers, a valid scale that could be used to improve service quality. This research could be expanded by using a wider demographic group and including other retail shops in the area which will require further modification of the scale.

1.5 Objectives of the study

The main objective of this study is to develop a scale to measure retail service quality in a college shop. The second objective of the research is to investigate the relationships between the service quality dimensions and satisfaction, loyalty and frequency of visits. The third objective of this study is to measure any differences between service quality dimensions by demographic characteristics.

1.5.1 Research Question and Hypotheses

Based on the review of the literature and in order to meet the objectives of this study the following research question has been formulated:

How to evaluate retail service quality in a college shop and its influence on customers?

Based on the main research question, the following supporting questions emerged to answer the overall research question.

- 1. How should service quality perception be measured at a college shop using a context-specific scale?**
- 2. Is there an association between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits?**
- 3. Is there a difference between service quality dimensions by demographic information?**

A positivist approach has been taken to the research and to the hypothesis designed to answer the research question. A summary of the hypotheses is set out below and a complete description can be found at the end of chapter 2.

Hypothesis 1

The modified service quality dimensions have a positive association with overall service quality.

Hypothesis 2

The modified service quality dimensions have a positive association with overall satisfaction.

Hypothesis 3

The modified service quality dimensions have a positive association with loyalty to Al Waha.

Hypothesis 4

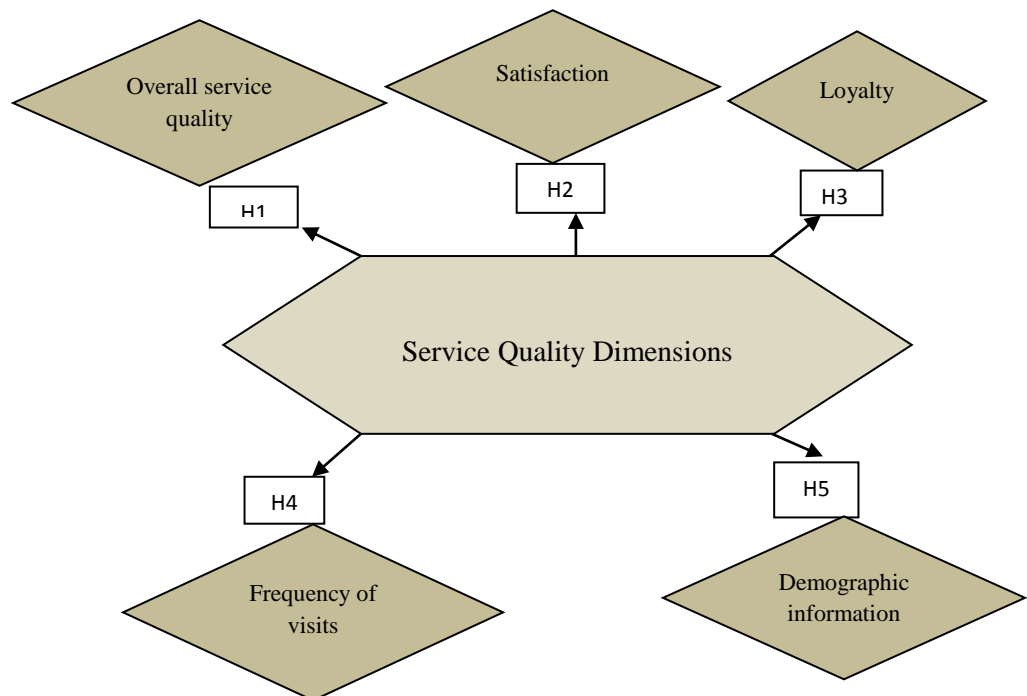
The modified service quality dimensions are positively correlated with frequency of visits to Al Waha.

Hypothesis 5

There is a significant difference in the Al Waha service quality scale dimensions by demographic information.

Figure 1.1 below summarizes the hypotheses and shows the relationship that each hypothesis is testing.

Figure 1.1: The research hypotheses



To test these relationships, the researcher followed a positivist approach and used a scale to collect the data. Before using the scale, the researcher modified the existing retail service quality scale (RSQS) to be more appropriate for the college context. The scale was modified based on interviews with customers of Al Waha shop and this produced a new modified scale that consisted of 40 items. Using principal component analysis, the scale was reduced to 22 items. The reliability and validity of the scale was high, which meant that the scale was suitable for the college shop. The new scale, called Al Waha Service

Quality Scale (ASQS), was used in the main study to test the relationships between ASQS dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographic information.

1.6 Structural content of the thesis

This thesis consists of six chapters. The following briefly describes each chapter:

Chapter One introduces and presents the background of the study, as well as the research questions and objectives. This study is unique in many ways because it is conducted in a region that is under researched in the area of service quality and it includes a college shop that is staffed by young Arab students. The main aim of this research is to modify a scale to measure retail service quality that is suitable for a college shop and then investigate the relationships between service quality dimensions, satisfaction, loyalty, frequency of visits and demographic information.

Chapter Two, the literature review, introduces the service quality topic and discusses the conceptualization and measurement of service quality. The four service characteristics—intangibility, inseparability, heterogeneity and perishability—made the definition and measurement of service quality difficult. This discussion is followed by an outline of the different definitions of service and quality separately and then a definition of service quality. Subsequently, the two major service quality models, the American school and the Nordic school, are discussed in detail, and the differences between these two schools were reviewed. The SERVQUAL is the most dominant scale for measuring service quality; therefore it was discussed in more details. The second part of the literature review presents the topic of retail service quality for shops and the need to differentiate it from pure services. There is consensus that the best method for measuring retail service quality is the retail service quality scale (RSQS). However, it was found that the scale is more appropriate if it is modified for different countries; therefore, the need for modifying the scale as well as the need to consider culture when modifying the scale is discussed in detail. After scale modifications, the relationships between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographic information are discussed.

Chapter Three discusses the underpinning methodology of this study, beginning with a presentation of the research philosophy, followed by a review of the main methodology for data collection, including sample size. In this study, the researcher follows an objective

epistemology and a positivist approach because of the nature of this research. This is followed by a presentation of the main research questions and the hypotheses based on these. A detailed explanation of the methods of data analysis and the steps used for scale modification are discussed, followed by the reasons for modifying the scale. The main method for data collection was the questionnaire; therefore, the reliability and validity of the scale are discussed. This discussion is followed by the presentation of the new, modified scale to be used in phase one of the study.

Chapter Four presents phase one of the study and general demographic information about the customers. A brief description of Al Waha (college shop) is presented, followed by phase one of the study that resulted in a reduced scale being used for the main study. For phase one of the study, 350 questionnaires were distributed, however, only 303 completed questionnaires were used.

Chapter Five discusses the findings of the study. Five hundred questionnaires were distributed, and 424 completed questionnaires were used for this study. The chapter begins with an account of the demographic information of the respondents, followed by a factor analysis of the scale that confirms the four dimensions. This analysis is followed by a discussion of the reliability and validity test of the scale. The hypotheses of the study are then investigated, whereupon the relationships between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits are demonstrated. A multiple regression analysis was used to test these relationships. A correlation analysis was used to test the strength of the relationship between the service quality dimensions and frequency of visits, and the relationship between Al Waha service quality dimensions and demographic information is reviewed. A Kruskal-Wallis test was used to ascertain the relationship between service quality dimensions and age, marital status, education level and income level. A Mann-Whitney U test was performed to test the relationship between Al Waha service quality scales and gender.

Chapter six discusses in detail the conclusions drawn from the findings. Furthermore, the discussion of the limitations and contributions of the study are presented, followed by suggestions for future research.

Chapter 2

Literature Review

Chapter 2: Literature Review

2.0 Introduction

Service quality is considered as one of the top priorities of firms at the present time because it gives the company a competitive advantage, helps sustain growth and increases efficiency (Wisniewski & Wisniewski, 2005; Ladhari, 2009b). These days consumers expect higher quality services which puts pressure on businesses to have a better understanding and measurement of service quality (Wisniewski & Wisniewski, 2005). In the past 30 years there has been considerable interest and debate among academics and practitioners in the literature on defining and measuring service quality (Martinez & Martinez, 2010). In the USA, in terms of employment, the service sector has been bigger than the manufacturing sector since 1929, with 55% of the labour force working in the service sector. This increased to 82% in 2006 and the services represent 80% of the Gross Domestic Product (Zeithaml, Bitner & Gremler, 2009). In 2005 the service sector in the European Union represented 71.6% of the GDP with around 75% employed in the service sector (Palmer, 2008).

This chapter begins with an exploration of the concepts related to service quality. According to Parasuraman, Zeithaml & Berry (1988) service quality means the customer's overall judgment of the excellence of the service or the difference between one's expectation and the actual service performed. A discussion on the service quality concept and the definition of services and quality is presented. This is followed by a discussion on the perception of service quality, expectations and the zone of tolerance. The perception and expectations of service quality is part of the definition of service quality as stated by Parasuraman, Zeithaml & Berry (1988). A discussion of the main service quality models used by the Nordic school and North American school will be presented. The North American school uses SERVQUAL to measure service quality and it is discussed in-depth since it is the most used tool for measuring service quality.

A more in depth discussion is then presented of retail service quality which is the focus of this research. This is followed by a discussion of the retail service quality scale (RSQS) which is regarded as an alternative to SERVQUAL for measuring retail service quality. Therefore, the arguments for developing a modified scale as research suggests that the scale is more appropriate if it is country or context specific (Ladhari, 2008). This is

followed by a brief exploration of culture and demographics and the relationship with service quality dimensions.

There then follows a discussion on the importance of service quality dimensions on satisfaction, loyalty and frequency of visits. The emphasis is placed on the relationship between service quality, satisfaction and loyalty because research has shown a link between service quality and satisfaction (van der Wal, Pampallis & Bond, 2002). Evidence shows an increase in satisfaction is linked to an increase in repeat business and the willingness to recommend to other customers (Yuksel, Yuksel & Bilim, 2010). Consequently, an increase in satisfaction suggests an increase in loyalty (Wicks & Roethlein, 2009) which is further linked to customer retention and ultimately has an effect on the company's profit (Davis-Sramek *et al.*, 2009).

The map below, figure 2.1, shows a brief description of the different sections of the literature review chapter. The first half of the chapter is about service quality in general and the second half is specifically about retail service quality and the best way to measure it.

2.1 Map of literature review chapter

Figure 2.1 below shows a map of the literature review chapter as described in the introduction. It includes two parts, part 1 shows the service quality section that explores service quality in general and part 2 is about the more specific part that explores retail service quality.

Figure 2.1: Map of the literature review chapter (Part 1)

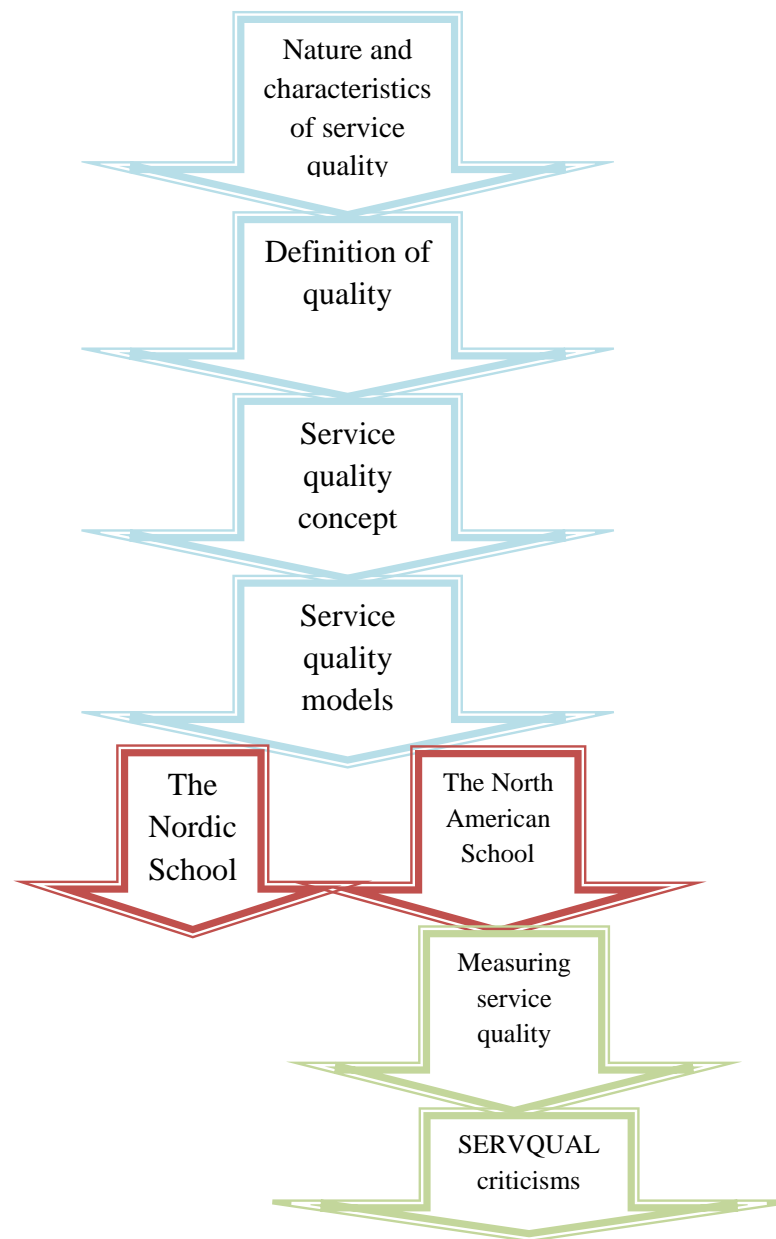
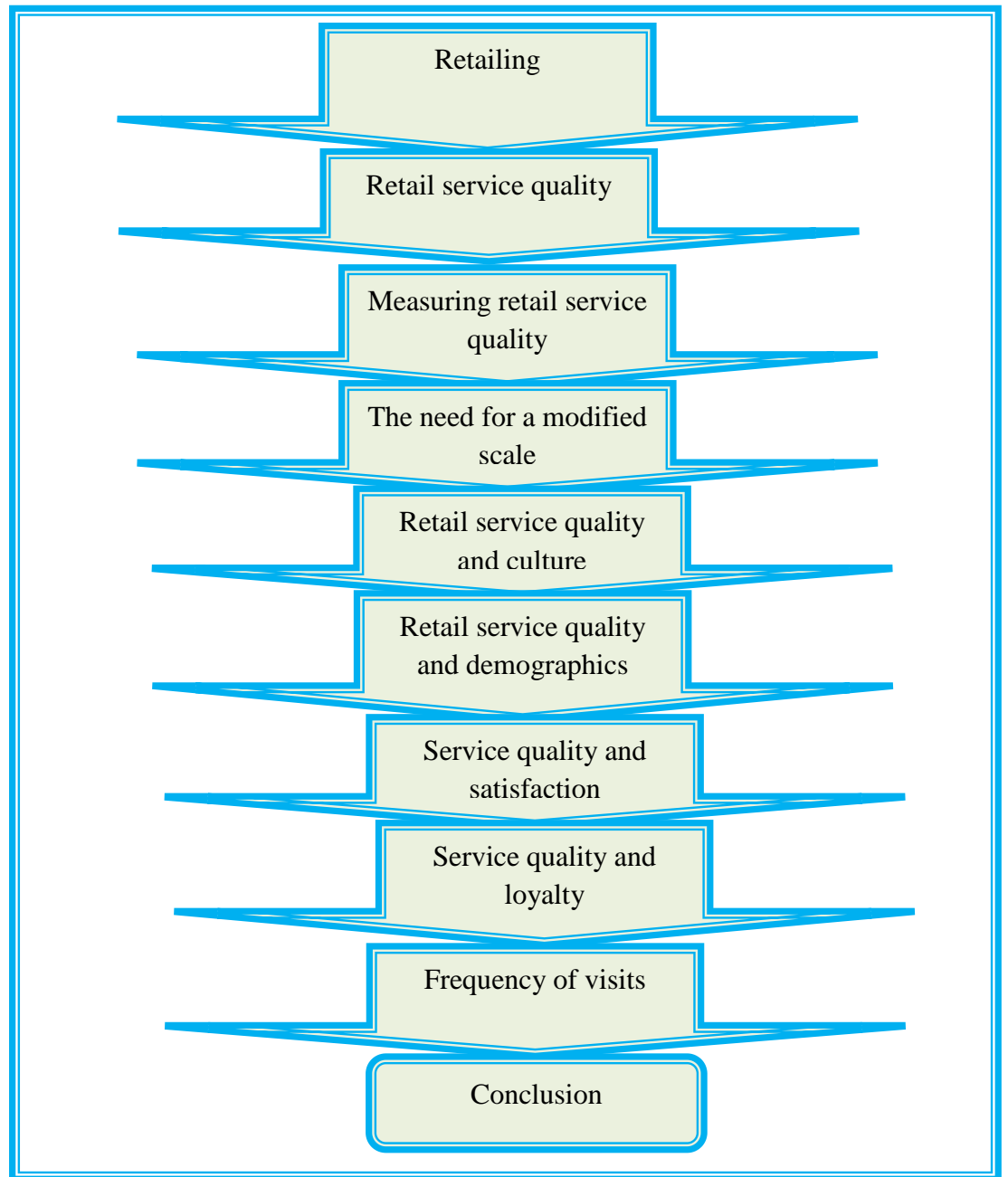


Figure 2.1: Map of the literature review chapter (Part 2)



2.2 The Nature and Characteristics of Services

According to Gronroos (2000, p.46) services are “an activity of more or less intangible nature that normally, but not necessarily, takes place in interactions between the customer and service employees and/or physical resources or goods and/or the service provider, which are provided as solutions to clients problems”. Some researchers define services as processes that are produced and consumed with the involvement of customers in the production and consumption of services (Edvardsson, 2005). Zeithaml, Bitner & Gremler

(2009, p.4) indicate that services are “deeds, processes, and performances provided or co-produced by one entity or person for another entity or person”. Another definition of services is that it is an experience that includes the way the customer feels about the service or as a transaction with inputs and outputs (Tyagi & Gupta, 2008). The input to service as a transaction includes the customer, systems, interpersonal skills and the work environment, whereas the output of a transaction might be the service to a customer; this makes it hard to measure because it includes the customer’s perception of the service (Tyagi & Gupta, 2008). Therefore, services are the experiences that the customer receives during the service encounter (buyer-seller interaction) (Hopkins, Hopkins & Hoffman, 2005).

According to Wilson et al. (2008). services are usually discussed in terms of the following distinctive characteristics; the examples below are used to clarify the characteristics of services as discussed by Wilson et al. (2008).

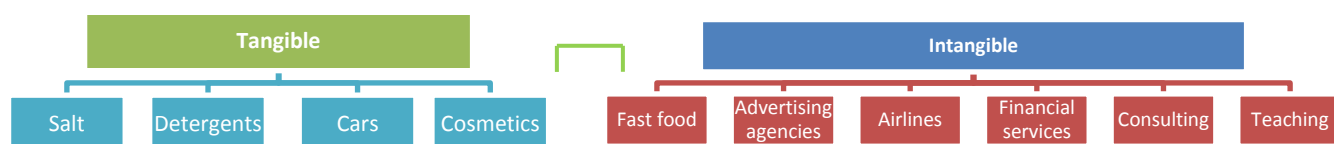
- **Intangibility:** this is the most important attribute of services and differentiates services from goods as services are actions, not objects like goods, therefore they cannot be seen, touched, smelled or tasted. Health care services are intangible, for example the service a dentist performs for a patient cannot be touched, smelled or tasted.
- **Inseparability:** services are generally sold first then produced and consumed concurrently. This is different to goods which are produced first, sold to the customer and then consumed. Usually the consumer is present when the service is being provided which means the consumer is part of the service process. An example of a service that is produced and consumed at the same time is going to the dentist where the patient is being treated at the same time as the service is provided by the dentist. The service is sold to the consumer before the treatment starts. The consumer must provide the insurance details to the dentist or agree payment before the dentist starts the treatment.
- **Heterogeneity:** quality of services can be inconsistent as they are performed by different employees and at varying time intervals. It is difficult to reproduce services to the same standards, as can be done with products, because they are produced by people. The combination of employees and customers will vary each time making it difficult to have two services that are completely alike. This also justifies the need for services to be provided differently in order to accommodate the customer’s needs and demands.

- **Perishability:** services cannot be stored like products and it is difficult to review and reassess it, as one would do with products. Moreover, services cannot be returned or resold. For example, a patient who has had a tooth filled cannot then sell the dentist's service to another patient.

The previous service characteristics should be viewed as the difference between services and products and not only service characteristics. Therefore, services could be seen as more intangible than goods, more difficult to separate the production and consumption, more heterogeneous and more perishable than goods (Wilson *et al.*, 2008). Consequently, all service characteristics could be viewed on a continuum similar to the tangibility continuum **figure 2.2** below. However, there are a few products that are completely intangible; services tend to be more intangible than products (Zeithaml, Bitner & Gremler, 2009).

Figure 2.2 below shows the services that are at the end of the continuum on the intangible side, such as teaching and consulting, because there is little or no product being offered. In the example of teaching maybe one could consider students' corrected exams as a tangible product. In the middle of the continuum are fast food restaurants because they offer a service and a product. The product is the meal and the service is serving the meal to the customer. On the other end of the continuum is salt and detergents because they are products that require little or no services. When a customer goes to the supermarket and picks up detergent they usually require little or no service. This is different to buying a car where a customer might ask the salesman about details regarding the specifications of the car and this requires knowledge on the part of the sales person.

Figure 2.2: The tangibility intangibility continuum



Source: (Zeithaml, Bitner & Gremler, 2009, p.6)

As stated by Gronroos (2000) the main differences between services and product characteristics are summarised in **table 2.1** below.

Table 2.1: Differences between services and physical goods

PRODUCTS	SERVICES
TANGIBLE	INTANGIBLE
HOMOGENEOUS	HETEROGENEOUS
PRODUCTION AND DISTRIBUTION SEPARATED FROM CONSUMPTION	PRODUCTION AND DISTRIBUTION AND CONSUMPTION AS SIMULTANEOUS PROCESSES
A THING	AN ACTIVITY OR A PROCESS
CORE VALUE PRODUCED IN FACTORY	CORE VALUE PRODUCED IN BUYER-SELLER INTERACTIONS
CUSTOMERS DO NOT (NORMALLY) PARTICIPATE IN THE PRODUCTION PROCESS	CUSTOMERS PARTICIPATE IN PRODUCTION
CAN BE KEPT IN STOCK	CANNOT BE KEPT IN STOCK
TRANSFER OF OWNERSHIP	NO TRANSFER OF OWNERSHIP

Source: (Gronroos, 2000, P.47)

There are two differences between Gronroos (2000) list of the main characteristics of service quality which represents the Nordic school and Wilson et al. (2008) list of the characteristics of service quality which represents the American school. The first difference is that perishability in the American school is one item but in the Nordic school it is divided into two points which are, ‘service cannot be kept in stock’ and ‘no transfer of ownership’. The second difference is that inseparability in the American school is one item but in the Nordic school it is divided into two points which are ‘production and distribution and consumption as simultaneous process’ and ‘customers participate in production’. There are very few differences between the two schools regarding the classifications of services as pointed out earlier.

Finally, from the previous discussion it can be argued that managing services is more complex than managing products because of the four distinctive characteristics of services; the intangibility, inseparability, heterogeneity and the perishability. Most tangible products have an intangible part and most intangible services have a tangible part. An example of this is when a customer goes to buy a computer (tangible) s/he might require a great deal of service (intangible) such as knowledge of the computer’s speed and specifications. Accountants might prepare taxes (intangible) and provide the customers with the forms to sign (tangible).

2.3 The Definition of Quality

There are various definitions of quality but W. Edward Deming a renowned author in quality management, states that “a product or a service possesses quality if it helps somebody and enjoys a good and sustainable market” (Deming, 2000, p.2). Researchers no longer view quality as products with no defects, rather quality is explained in terms of the value it adds by a system of continuous improvement in all areas with a focus on satisfying the customers (Mele, 2007). Another definition of quality, is that of the International Organisation for Standardisation (ISO) is “the totality of features and characteristics of a product or service that bear on its ability to satisfy given needs” (Swanson, 1995, p.1).

There are many other definitions of quality but the most comprehensive one is the approach by David Garvin (Foster, 2004) who classifies the definition of quality as one of five approaches. The five principal approaches to quality are *transcendent*, *product based*, *user based*, *manufacturing based* or *value based* (Foster, 2004; Kasper, Helsdingen & Gabbie, 2006). *Transcendent* means that products or services have incomparable qualities and refers to the way the individual perceives quality. Second, *product based* refers to the tangible characteristics or components of the products or services; qualities that make customers rate one product or service higher than another, for example, a handmade chair that is crafted from superior wood makes it strong and durable. Third, *user or customer based* refers to the customer’s requirements being met which in turn lead to customer satisfaction. Cost, reliability and performance are important elements for customer’s evaluation of the quality which makes the focus on quality external. Fourth, *manufacturing or supplier based* means that the products or services meet the requirements and specifications of the service or product provider. The focus on quality here is internal, on the process and not the outcome. Fifth, *value based* refers to meeting the customer’s requirements in price, quality and availability. This means that the customer evaluates the product or service, knowing that there is a compromise between price, quality and availability.

Garvin (1988) suggests that organisations should combine as many of the previous quality approaches as possible in order to have a successful quality programme. For example a company could start with the user-based approach to recognize certain features that the customer requires in the product or service. After that, the product-based approach could be used to add new features to the product or service. This is an example of combining the user based approach with the product based approach.

2.4 Service Quality Concept

As discussed earlier services have the four characteristics; intangibility, heterogeneity, perishability and inseparability, which makes the concept of service quality elusive and abstract (Ladhari, 2009a; Lin, 2010) which complicates the conceptualization and measurement of service quality (Cronin & Taylor, 1992; Lee, 2007; Marshall & Johnston, 2009). To understand service quality, the organization must “define how service quality is perceived by the consumer and determine in what way service quality is influenced” (Gronroos, 2007a, p.57). Gronroos (1984) defines perceived service quality as a consumption process in which the customer is part of the service process that leads to an outcome or result. The way the customer perceives the service process at the time of the service is more important than the outcome of the service. According to Parasuraman, Zeithaml & Berry (1988) service quality is the customer’s judgment of overall excellence of the service or the difference between customer’s expectation and the actual service performed or perceived. The customer’s expectation and perception of the service becomes important when the customer thinks back to see if the perception exceeded the expectations (Siu & Cheung, 2001; Kang & James, 2004).

Service quality is viewed as either a difference between the expectations and perception of the service or as an attitude based view. The first view was suggested by Parasuraman, Zeithaml & Berry (1988) who view service quality as a comparison between customer’s expectations and perception of service quality. They developed a model based on the difference between the customer’s expectations and perception of service quality. Cronin & Taylor (1992) argue that service quality should be viewed as the customer’s attitude towards a service. This view supports the measurement of service quality based on the perception (performance only) of service quality. Rust & Oliver (1994) concur with the idea that perceived service quality is similar in meaning to attitude which includes the overall judgment of a product or service.

Researchers as well as managers are interested in the area of service quality because it is known to reduce costs, increase customer satisfaction (Chen, 2008; Howat, Crilley & McGrath, 2008), increase customer loyalty and retention (Sureshchandar, Rajendran & Aanatharaman, 2002; Wong & Sohal, 2003; Bontis & Booker, 2007; Prayag, 2007; Howat, Crilley & McGrath, 2008), increase repurchase intention (Perez *et al.*, 2007; Chen, 2008) and make the organization more profitable (Asubonteng, McCleary & Swan, 1996; Buttle,

1996; Sivadas & Prewitt, 2000; McAdam, McLean & Henderson, 2003; Seth, Deshmukh & Vrat, 2005; Edvardsson, 2005). Furthermore, research shows that service quality has an impact on company performance, attracts new customers, is linked to employee and customer satisfaction and enhances the image of the organisation, (Seth, Deshmukh & Vrat, 2005; Akbaba, 2006). According to Palmer (2008) there is a clear connection between improving service quality and higher profit; improving service quality was found to have a positive effect on the company's stock value and in an empirical study in the United Kingdom, it was found that customer satisfaction is linked to profit. "The competitive advantage of successful service providers and retailers is often explained with a logic wherein service quality contributes to customer value, resulting in increased satisfaction and behavioural intentions, eventually creating loyalty that manifests itself in enhanced profitability" (Rintamaki, Kuusela & Mitronen, 2007, p.621).

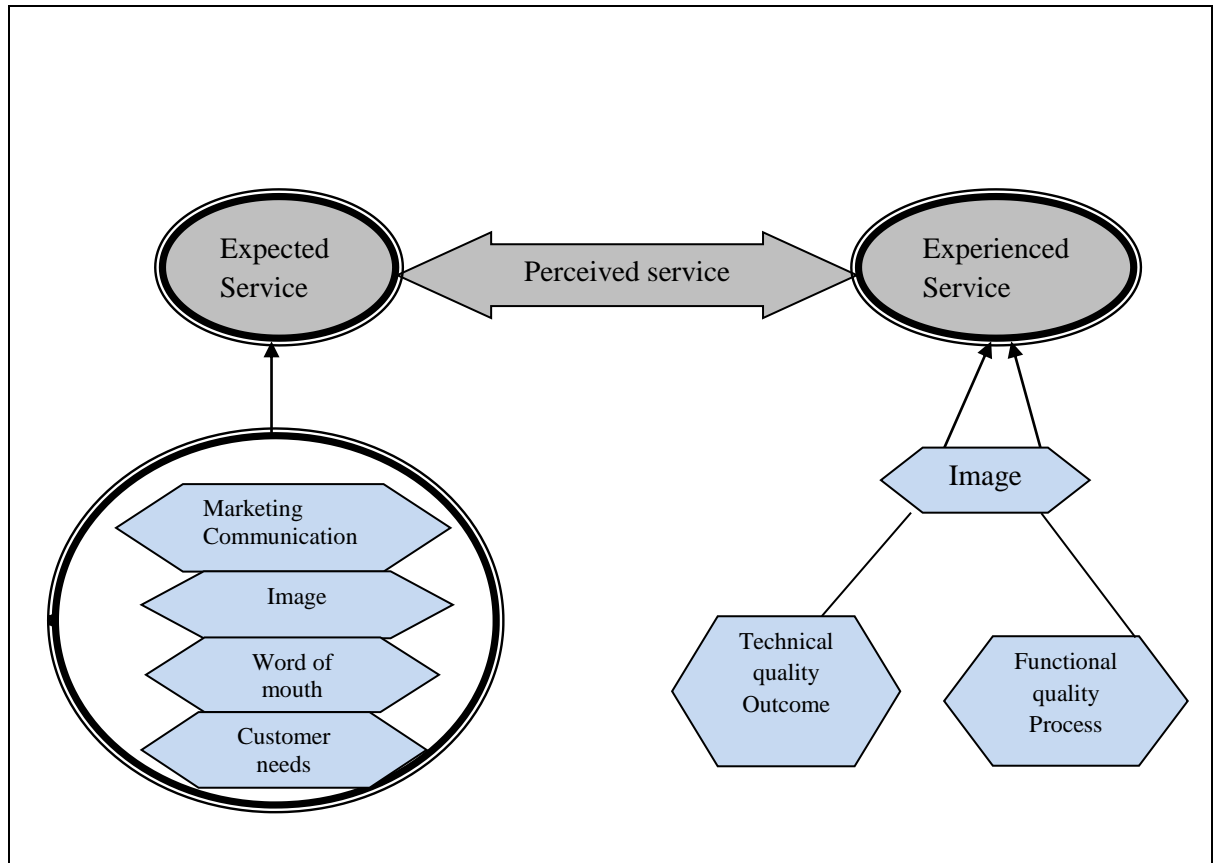
2.5 Service Quality Models

Most service quality models suggest a multidimensional conceptualisation of service quality that leads to the measurement of service quality from a consumer's perspective (Akinci, Atilgan-Inan & Aksoy, 2010; Martinez & Martinez, 2010). There is a need to have a clear understanding of the service quality models because they help managers to identify quality problems which leads them to plan programmes to improve the quality which in turn will lead to better performance (Seth, Deshmukh & Vrat, 2005; Ahmad *et al.*, 2009). Two major schools of thought dominate the literature; the American school and the Nordic school (Karatepe, Yavas & Babakus, 2005; Caro & Garcia, 2007) and researchers generally adapt one of the two schools (Ahmad *et al.*, 2009).

2.5.1 Nordic School

The main contributor to the Nordic school service quality model is Gronroos. This model is not as widely known as the American school (Woodall, 2001; Kang & James, 2004). Gronroos' service quality model consists of three dimensions: technical quality, functional quality and image (Gronroos, 2007a). The technical or outcome dimension is usually more objectively measured than the functional quality (Palmer, 2008) because it is the quality that can be quantified, for example, arriving at a destination using the metro. The technical quality includes 'what' the customer receives as a result of the interaction with the service provider. For example an outcome of the interaction with a bank employee could be that the customer was granted a loan (Palmer, 2008). On the other hand, the functional or

process related dimension is more of a subjective evaluation by the customer and includes 'how' the service was performed by the service provider. For instance, the way employees deal with customer while they are waiting for the service (Palmer, 2008). This might also include the behaviour, appearance and the way the employees communicate with the customer which can influence the customer's evaluation of the service, "how the customer gets the technical outcome" (Gronroos, 2007a, p.61). The image which refers to the company image is the way the consumer perceives the firm and to a great extent is built up of two dimensions, the technical dimension and the functional dimension (Gronroos, 2007b). Another factor which influences the image of a company is the advertising that is undertaken by the company. If a customer has a positive image of the organization, s/he will tolerate small mistakes provided that these mistakes are not repeated. However, a negative image makes the customers less tolerant to the mistakes of the service provider (Kang & James, 2004). Sometimes Gronroos presents image as a dimension and sometimes he presents it as a factor that influences the technical and functional quality dimensions and does not refer to it as a dimension. Gronroos' model is viewed as a three dimensional model or a two dimensional model (Gronroos, 2007b; a) depending on whether image is included or excluded as a dimension.

Figure 2.3: Gronroos service quality model

Source: (Gronroos, 2007a, p.78)

Figure 2.3 above shows that experienced service has only three dimensions; technical quality, functional quality and image. On the other hand, the expected service has many components such as marketing, communication, sales image and word of mouth (Gronroos, 2007b). The perceived service quality is determined by the experienced service and expected service. The customer has a good perception of service quality when the experiences meet the expectations (Gronroos, 2007b). For a customer to have a positive experience the experienced quality must be higher than the expected quality in order to close the gap. The perceived service quality is not a result of the technical and functional quality dimensions only but a result of the gap or differences between the expected quality and experienced quality (Gronroos, 2000).

According to Gronroos (2000) to achieve good service quality seven criteria must be met. These criteria are presented below and are based on how the customer view service quality:

- Professionalism and skills: refers to the skills that the employees of an organisation have in dealing with problem solving (outcome dimension).
- Attitude and Behaviour: the way the employees deal with customers in a friendly manner (process dimension).
- Accessibility and Flexibility: this refers to the operating hours of the organisations and the organisation's systems that make it easy for customers to receive the service (process dimension).
- Reliability and Trustworthiness: this refers to the customer's ability to rely on the service provider to deliver the promised service (process dimension).
- Service Recovery: the way the service provider deals with the service when things go wrong and the way they rectify the situation (process dimension).
- Serviscape: refers to the physical aspects of the organisation that support a pleasurable experience (process dimension).
- Reputation and Credibility: refers to the faith the customer has in the service provider and that they received value for their money (image)

Another service quality model which is part of the Nordic school (Athanasopoulos, 2000) is the three dimensional model of service quality (Lehtinen & Lehtinen, 1991), which includes physical quality, interactive quality and corporate quality. Physical quality is the quality that results from the physical element of the service. It includes the physical products (goods) that are consumed during the service process and this is usually evaluated in an objective manner, and physical support which aids the production of the service. The physical support is further divided into two categories; the environment of the service firm (the decoration and the layout of the facility) and the equipment such as crockery and cutlery in the case of a restaurant.

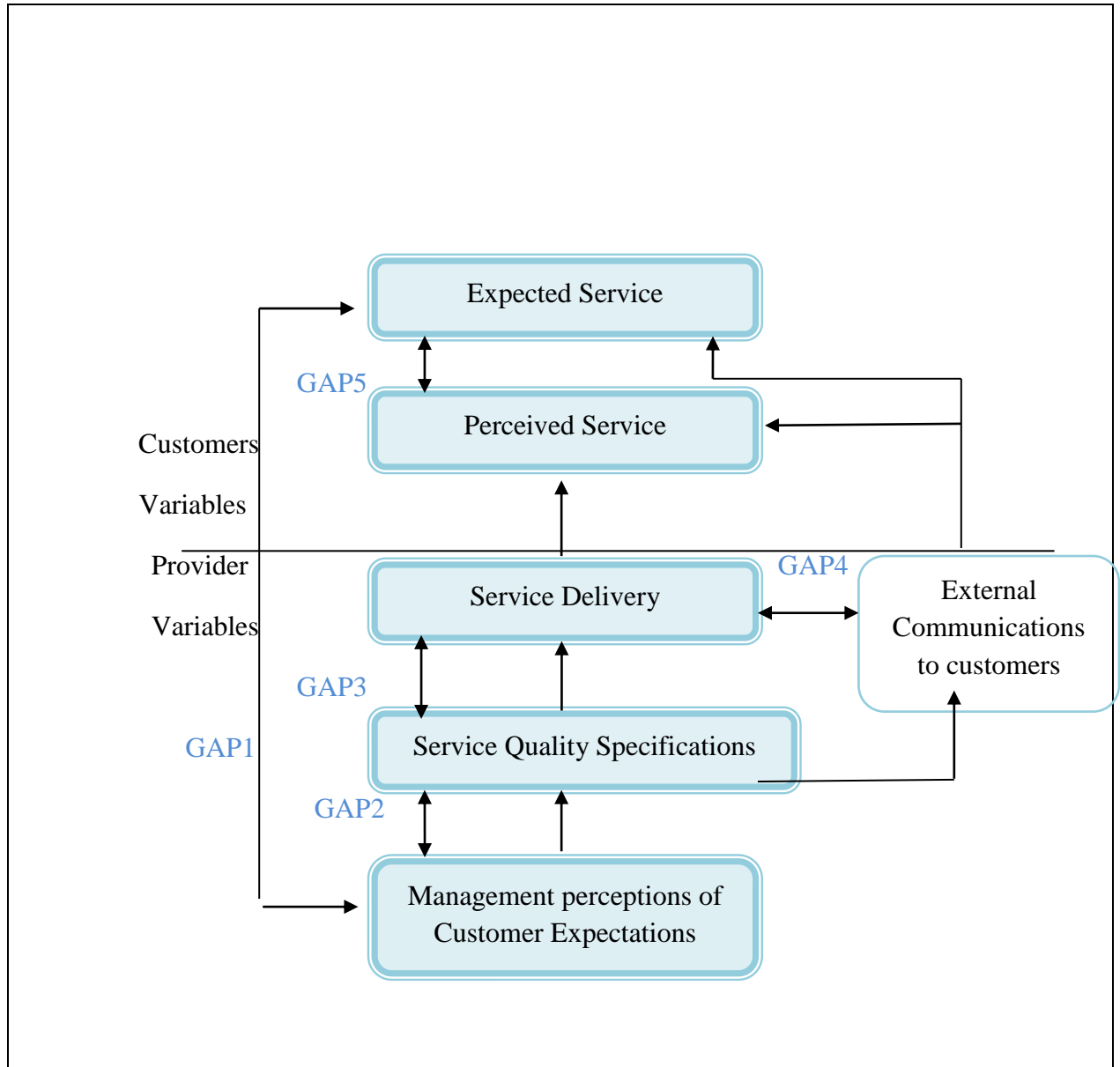
The interactive quality is the interaction with the employees or any other elements of the service provider. This also includes interactions that customers have with each other. The other elements could be mechanical such as ATM machines in banks or human such as the bank employee. Finally, the corporate quality is the history of the organisation and the image people form about the organisation. The corporate quality takes time to evolve whereas the physical quality might improve faster depending on the improvements made by the organisation (Lehtinen & Lehtinen, 1991).

Lehtinen & Lehtinen (1991) introduce another service quality model which is from the customer's point of view and is based on two dimensions. They argue that service quality could be judged by the customer as two dimensions; process service and output quality service. Process quality is the subjective assessment of the service process; the way the customer views the production process and how well they fit into the process. The customer's experience depends on the nature of the service and the level of the customer's participation. Ultimately, the process quality relies on the match between the customer's style and the provider's style but when there is a mismatch between the two, the customer will perceive quality as being poor.

The second dimension is the output quality which is the customer's judgment of the end result of the service. The output quality is divided into tangible and intangible elements. An example of a tangible element is a car wash which could be evaluated by the customer. Whereas tourism is an example of an intangible output because it depends on the feelings of the customer.

2.5.2 The North American School

The North American School is more widely known than the Nordic school, and it is based on Parasuraman, Zeithaml & Berry (1988) gap model (O'Neill & Palmer, 2003; Karatepe, Yavas & Babakus, 2005; Prayag, 2007). The American school, also known as the disconfirmation model, was developed in 1985 then later modified in 1988, 1991 and 1994 (Akbaba, 2006). The gap model is about giving managers the tools to improve service quality. This service quality model is based on five gaps with the consumer gap (gap 5) as the most important gap. The consumer gap is the difference between the customer's expectations of the services and the perception of the services (Zeithaml, Bitner & Gremler, 2009). Understanding the customer gap is key for improving service quality in an organisation, however it cannot be closed without closing the other gaps (Wilson *et al.*, 2008). Closing the provider gaps 1 to 4 are crucial for closing the customer gap (gap 5) as illustrated in **figure 2.4** below (Zeithaml, Bitner & Gremler, 2009). Gaps 1-4 are internal gaps and they are called provider gaps because they take place in the organisation that provides the service (Wilson *et al.*, 2008); and they are less researched than the customer gap (Urban, 2009). The size and direction of gap 5 is influenced by gaps (1-4); to improve service quality gaps 1-4 need to be reduced (Kasper, Helsdingen & Gabbott, 2006).

Figure 2.4: Gap Model

Source: Parasuraman, Bery, and Zeithaml, (1985, p.44)

As shown in **Figure 2.4** above there are five gaps; these gaps are summarised below (Kotler & Armstrong, 2010):

1. Consumer expectation-management perception gap (Gap 1): there is a difference between the customer expectation and the way the managers perceive this expectation. Management does not always have a clear understanding of the customer's expectation of service and they are unaware of the important service aspects customers look for when being served. Therefore, there are many reasons for the management's lack of understanding of customer's expectations such as the

lack of communication between them or the unwillingness of the management to tackle the customer's problems.

2. Management perception-service quality specification (Gap 2): this gap is the difference between customer's expectations and the standards that are established by the organisation which might not be enough to meet the customer's expectations of the service. The difficulty is in creating standards that ensure the customer's expectations are met, sometimes management consider customer expectations as unrealistic. These standards are considered weak or inappropriate if they do not reflect the expectations of customers, which lead to customer perceiving the quality of service to be inadequate.
3. Service quality specifications-service delivery gap (Gap 3): this gap is the difference between the service quality standards and the delivery itself, which can result in services being inadequate because they are dependent on employees who may be poorly trained. To ensure that the delivery matches or exceeds these standards, employees must be properly trained and the systems in place need to accommodate the delivery of the standards.
4. Service delivery-external communications gap (Gap 4): this gap is the difference between what the service provider promises and the actual service received by the customer. External factors such as advertising may increase the customer's expectation of the service delivery, therefore it is important not to promise what cannot be delivered as this will lead to customer frustration. It is important for the service provider to manage the expectations of the customers by clearly communicating the services that the company provides without any ambiguity.
5. Expected service-perceived service gap (Gap 5): the difference between the services the customers expect and the service they perceive. Customers have expectations that are based on past experiences and these expectations are what customers think the service should be. On the other hand, the customer perception is the subjective evaluation of the actual service at the time of the service. Customer satisfaction is imperative for the competitiveness of the organisation, therefore it is important to understand the customers in order to deliver a quality service.

The model shows the links between the different activities that are vital for delivering service quality; these links or gaps when closed (gap 1 to 4) leads to improved service

quality (Zeithaml, Bitner & Gremler, 2009). Once the gap is identified, managers can identify areas of weakness in their service and plan for improvements to reduce the gap (Foster, 2004; Palmer, 2008). Managers could use different tools to close the gaps, one of which is through employees empowerment and training (Prayag, 2007). To measure the most important gap which is the consumer gap (gap 5) a 22 item scale called SERVQUAL is used (Foster, 2004; Prayag, 2007). SERVPERF is similar to SERVQUAL in that it uses the same 22 item scale to measure service quality, but differs in the number of times the service quality is measured. SERVPERF uses the 22 item scale once to measure the perception of service quality; whereas the SERVQUAL uses the scale twice once to measure the expected service quality and once to measure the perceived service quality. Even though SERVQUAL is used to measure other gaps such as the management gap, the employee gap or the difference between the managers and customers (Foster, 2004); measuring the customer gap (gap 5) is the heart of the SERVQUAL model (Prayag, 2007).

SERVQUAL is used to measure service quality as a multi-dimensional construct across five dimensions: tangibility, reliability, responsiveness, assurance and empathy (Cui, Lewis & Park, 2003). The five dimensions are explained in detail below:

1. Reliability: this refers to service reliability, which is different from product reliability and involves the service provider to be able to perform the services accurately and dependably. This means that the company fulfills its promises with regard to the delivery of the service, the price and solving the customer's problems.
2. Responsiveness: the readiness to provide timely service by the service provider. This includes paying attention to the customer, and dealing with the customer's complaints and problems in a timely manner. Responsiveness is being flexible with the customer and trying to accommodate the customer's demands and performing the service without delay.
3. Assurance: the ability to deliver services at a professional level. This includes the employee's knowledge and courtesy which inspires confidence in them. Having trust and confidence in the employee leads to the customer having more trust in the company itself. For example, a salesman who sells health insurance needs the customer's trust, in order for them to buy the health insurance (Wilson *et al.*, 2008).
4. Empathy: the ability to understand customer needs and to give personal attention. This includes the ability to show the customer that the service provider cares about him/her because they know how valuable s/he is to the business. Being able to

build a relationship with the customer, understanding their needs and providing him/her with personalised services.

5. Tangibles: the physical appearance of the facility which includes materials, equipment and personnel. This enhances the image of the company and provides a more positive image in the way the customer perceives the service.

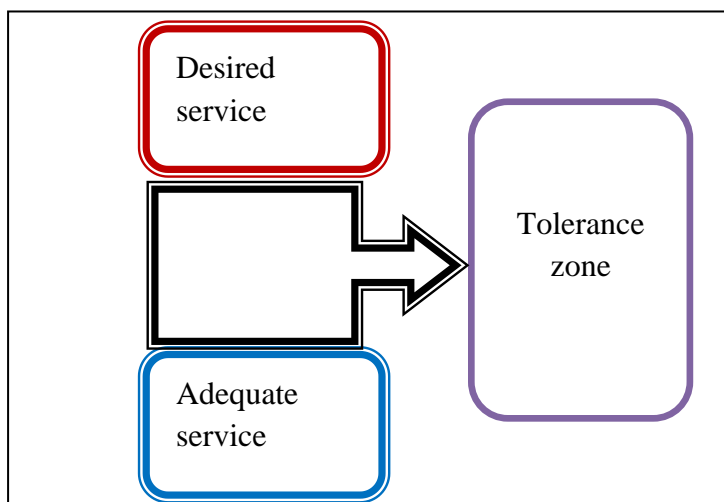
Many researchers find that the perception of service quality influences the customer's readiness to buy, more than the perception of the quality of the product (Swoboda *et al.*, 2007). From the previous definitions of service quality it is apparent that they include the perception and expectations of services. Perception of service is the customer's opinion of the service or product (Foster, 2004) or the general judgment of a service (Sureshchandar, Rajendran & Aanatharaman, 2002) which is affected by many factors such as the education level, background and others (O'Neill & Palmer, 2003). Perception could be a one time or single perception of the company, such as an experience buying a product at a specific time, or an overall perception of the company based on many experiences with the organisation. This could also include the evaluation of other services that the company offers (Zeithaml, Bitner & Gremler, 2009). Therefore, experience becomes important when the customer makes judgments based on these experiences (O'Neill & Palmer, 2003). Experience is the subjective human process that includes feelings and reactions that are felt by the consumer while the service is being consumed (Chen & Chen, 2009). The perception of service quality is not constant which means that it changes for many reasons such as time, culture, consumer taste and promotional activities of the company (Zeithaml, Bitner & Gremler, 2009). Usually a customer's perception of a service decreases over time as people tend to forget the elements that made the service unique (O'Neill & Palmer, 2001).

Customer expectations are, according to Zeithaml, Bitner and Gremler (2009, p75), "beliefs about service delivery that serve as standards or reference points against which performance is judged". Another definition of expectations is based on consumer "norms, values, wishes and needs" which depend on the individual (Kasper, Helsdingen & Gabbott, 2006, p. 184). Therefore, expectations are different from one consumer to another since it depends on the individual which causes satisfaction levels to change from person to person (Kasper, Helsdingen & Gabbott, 2006). Moreover, expectations are usually formed from previous experiences and it is that level of service the customer expects from the service provider. Consequently, it is important for service providers to be aware of customer

expectations so they are able to deliver superior quality services (Wilson *et al.*, 2008). It is important for organisations to understand the different levels of customer expectations because serving customers at a level that exceeds these expectations will lead to customer satisfaction (Dutta & Dutta, 2009).

There are two different levels of expectations (Zeithaml, Bitner & Gremler, 2009); *desired service* is the level of service the customer anticipates receiving from the service provider. At the *adequate service* level, the customer anticipates a minimal standard of service from the service provider; this is the minimal level of the acceptable performance the customer will tolerate. The difference between the desired level and the adequate level is called the tolerance zone or the zone of acceptability as stated by Kasper, Helsdingen & Gabbott (2006). The zone of tolerance changes over time, from service to service and from customer to customer (Kasper, Helsdingen & Gabbott, 2006). The zone of tolerance according to Zeithaml, Bitner and Gremler (2009, p.80) is “the extent to which customers recognise and are willing to accept variations in services”. If the service level goes below the adequate service level, this usually causes customers to become irritated and dissatisfied. However, if the service level is above the desired level, it usually makes customers happy and satisfied with the service (Wilson *et al.*, 2008). **Figure 2.5** below shows that the difference between the desired services and the adequate services is called the zone of tolerance and this is based on the variations in the services provided to customers.

Figure 2.5: Zone of tolerance



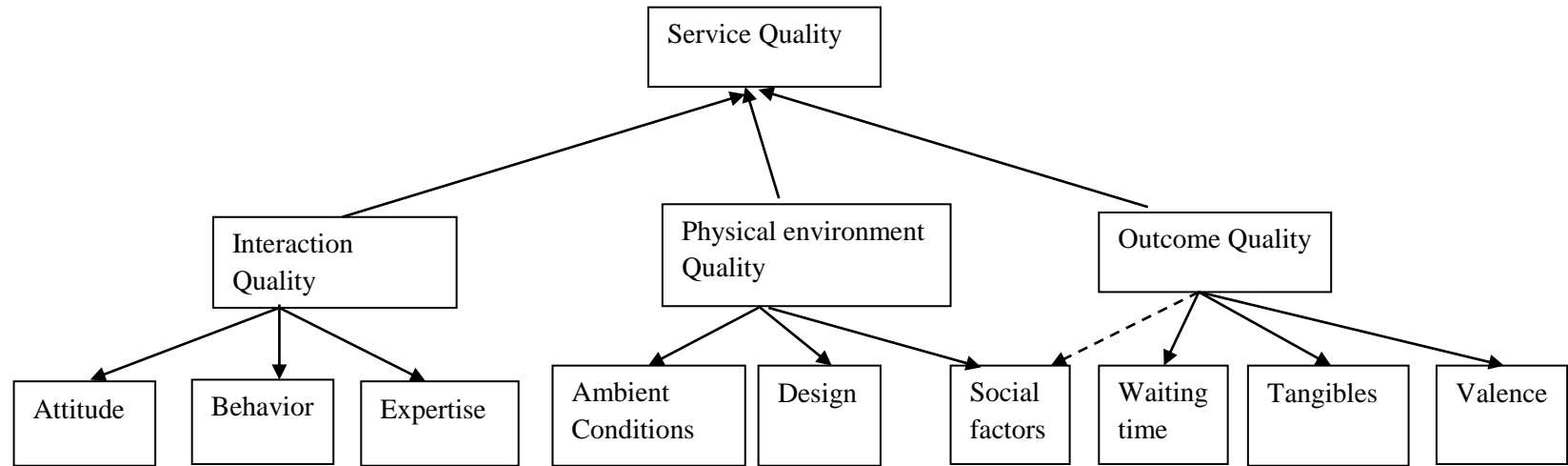
Source: (Zeithaml, Bitner & Gremler, 2009).

The zone of tolerance as illustrated above is the acceptable level of service for customers, and customers usually notice services if they drop below the adequate level of service or above the desired level of service (Zeithaml, Bitner & Gremler, 2009).

2.5.3 Other Service Quality models: The Hierarchical model

Brady & Cronin (2001) acknowledge that the American school and the Nordic school are the most adopted conceptualisation of service quality by researchers. They integrated the Nordic school model and the North American model into a new hierarchical model; they adapted the view of Rust & Oliver (1994) that perceived service quality depends on three dimensions; the customer employee interaction, the service environment and outcome. Brady & Cronin (2001) also adapted the view of Dabholkar, Thrope & Tenz (1996) that service quality is a multidimensional and multilevel construct. Therefore, the model by Brady & Cronin (2001) integrates the conceptualisation of service quality by suggesting a service quality model with three dimensions. The three dimensions are interaction quality, physical environment quality and outcome quality; each of these dimensions consists of three sub-dimensions and the aggregate evaluation of the sub-dimensions forms the perception of that dimension. The combined perception of these dimensions leads to the overall service quality perception. The Brady & Cronin (2001) model is presented in **figure 2.6** below.

Figure 2.6: Brady and Cronin (2001) Hierarchical model



Source: Brady & Cronin (2001, p.37)

According to Carrillat, Jaramillo & Mulki (2007) Brady & Cronin's hierarchical model has not persuaded researchers that it is superior to SERVQUAL or SERVPERF. Both SERVQUAL and SERVPERF dominate the literature with 46% of the articles that cited SERVQUAL or SERVPERF having done so in the past five years, which indicates that they are still very popular (Carrillat, Jaramillo & Mulki, 2007).

Before discussing the classification of service quality models as suggested by Martinez & Martinez (2010) it is important to clarify the difference between reflective measurement and formative measurement. Reflective measurement according to Bagozzi & Edwards (2000, p.155) are "constructs usually viewed as causes of measures, meaning that variation in a construct leads to a variation in its measures"; construct according to Bagozzi (2007) means conceptual term. To clarify Diamantopoulos & Siguaw (2006, p.263) explain reflective measurement as "latent variables which are measured using reflective (effect) indicators....indicators are seen as functions of the latent variable, whereby changes in the latent variable are reflected in changes in the observable indicators". Service quality construct as a reflective model means that service quality construct is reflected by its dimensions which indicate that changes in service quality construct causes changes in the dimensions and changes in the dimensions cause changes in the sub-dimensions. On the other hand, formative models are "measures that are viewed as causes of constructs" which means that the "the construct is formed or induced by its measures" (Bagozzi & Edwards, 2000, p.155). To clarify Diamantopoulos & Siguaw (2006, p.263) explain formative measurement "changes in the indicators that determine changes in the value of the latent variable". Service quality construct as a formative measurement means that changes in the dimensions causes changes in the service quality construct.

Martinez & Martinez (2010) classifies the service quality models into three main models to help conceptualise service quality:

- The multidimensional reflective model: an example of this type is the retail service quality scale by Dabholkar, Thorpe & Rentz (1996). This model is a multidimensional and a multi-level (hierarchical) model. This means that variation in the service quality construct causes variation in the dimensions and the variations in the dimensions causes variations in the sub-dimensions.
- Multidimensional formative models: examples of this type of model are the SERVQUAL, SERVPERF and the Nordic model. These models are multidimensional models and they assume that variations in the dimensions cause

variations in the service quality construct which is opposite to the reflective model. This model conceptualizes service quality as shaped by its dimension; this is different to the multidimensional reflective model which conceptualizes service quality as defined by its dimensions.

- The Multidimensional formative- reflective models: an example of this type of model is Brady and Cronin hierarchical model. This model is a combination of the formative and reflective models. This model is similar to the formative model in that it conceptualizes service quality as formed by its dimensions and it is similar to the reflective model in that the dimensions are reflected by its sub-dimensions.

The three service quality models are similar in that all of them are multidimensional models; the main differences between the Nordic school, American school of service quality and the Hierarchical model are presented in **Table 2.2** below. The seven criteria of good service quality in the Nordic school are similar to the service quality dimensions in the American school. The criteria of professionalism and skills in the Nordic school for good service is similar to one of the questions on the American school questionnaire on handling customer's problems. The second criteria of good service in the Nordic school is attitude and behaviour of the employees and this is comparable to an item on the American school questionnaire which is employees are consistently courteous with customers. The list goes on, at surface level one might think that the two schools are very different, but by looking more closely at them it can be seen that they are quite similar.

Table 2.2 below summarises the differences; column one shows the differences between the schools based on three criteria. The second column is the Nordic school point of view, the third column is the North American point of view and finally, the fourth column is the Hierarchical and Multidimensional model.

Table 2.2: The differences between the Nordic school, North American school and the hierarchical model

Difference based on	Nordic School	The North American school	The Hierarchical model
Authors	(Gronroos, 2007b)	(Parasuraman, Zeithaml & Berry, 1988)	(Brady & Cronin, 2001)
Definition of service quality	The difference between expected service quality and experienced service quality	The difference between perceived service quality and expected service quality	“customers form their service quality perceptions on the basis of an evaluation of performance at multiple levels and ultimately combine these evaluations to arrive at an overall service quality perception” (Brady & Cronin, 2001, p.37)
Dimension	Two or three dimensions which are Technical quality, Functional quality and Image. Image is sometimes considered a dimension	Five dimensions of service quality which are reliability, responsiveness, assurance, empathy and tangibles.	Three dimensions of service quality which are Interaction quality, physical environment quality and outcome quality
Improving service quality	Good service quality requires seven criteria	Five gaps need to be closed to improve service quality with the consumer gap at the heart of all gaps	Managers can identify weak areas by looking at the deficiencies in the nine sub-dimensions

2.6 Measuring Service Quality

Based on the earlier literature review the increasing interest in service quality has made the development of an instrument to measure service quality imperative; however there are difficulties in measuring service quality because of the nature of services. As discussed earlier services have four characteristics; intangibility, heterogeneity, perishability and inseparability which makes service quality an elusive and abstract concept (Ladhari, 2009a). Measuring service quality depends on the model underpinning service quality. Among all the service quality scales SERVQUAL has attracted the most attention (Lin, 2010) and has been identified as being the most widely used scale for measuring service quality (Akbaba, 2006; Albacete-Sa´ez, Fuentes-Fuentes & Llore´ns-Montes, 2007; Stodnick & Rogers, 2008) in service management and marketing literature (Stodnick & Rogers, 2008).

The SERVQUAL instrument developed by Parasuraman *et al.* (1988) originally consisted of 97 items and ten dimensions, it was then refined and reduced to 22 items that measure five dimensions (Akbaba, 2006). The conceptualisation of service quality is based on the difference between the customer perceived and expected level of service (Cui, Lewis & Park, 2003). This means that the customer conceptualises service quality as a gap between the expected level of service and their evaluation of the performed/perceived level of service.

The SERVQUAL scale consists of two sets of the same 22 items; the first set measures the customer's expectations of the services and the second set measures the customer's perception of the services (Asubonteng, McCleary & Swan, 1996; Kerin *et al.*, 2006). Customers form an opinion about the quality of service by comparing the expected level of service (expectations) with the perceived level of service (performance) (Parikh, 2006). For the service quality to be good, the performance or perceived level of service needs to be higher than the expected level of service (Parikh, 2006). As discussed in the North American school section, SERVQUAL is used to measure service quality as a multi-dimensional construct across five dimensions: tangibility, reliability, responsiveness, assurance and empathy (Cui, Lewis & Park, 2003). **Table 2.3** below shows the items under each dimension in the SERVQUAL scale.

Table 2.3: Service quality dimensions

Reliability	1. Providing services as promised. 2. Dependability on handling customers' service problems. 3. Performing services correctly the first time. 4. Providing services at the promised time. 5. Maintaining error-free records.
Responsiveness	6. Keeping customers informed about when services will be performed. 7. Prompt service to customers. 8. Willingness to help customers 9. Readiness to respond to customers' requests.
Assurance	10. Employees who instill confidence in customers. 11. Making customers feel safe in their transactions. 12. Employees who are consistently courteous. 13. Employees who have the knowledge to answer customer questions.
Empathy	14. Giving customers individual attention. 15. Employees who deal with customers in a caring fashion. 16. Having the customer's best interest at heart. 17. Employees who understand the needs of their customers. 18. Convenient business hours.
Tangibles	19. Modern equipment. 20. Visually appealing facilities. 21. Employees who have a neat, professional appearance. 22. Visually appealing materials associated with the service.

As a result of some problems associated with SERVQUAL scale; Cronin and Taylor (1994) suggested the SERVPERF or the performance only model as an improvement to the SERVQUAL. SERVPERF overcame some of the problems associated with SERVQUAL such as the difficulty of administering the questionnaire twice and low reliability associated with using the gap scores (Lee, 2007). SERVPERF is similar to SERVQUAL in that it uses the same 22 item scale to measure service quality, but differs in the number of times the service quality is measured. SERVPERF uses the 22 item scale once to

measure the perception of service quality; unlike the SERVQUAL which uses the scale twice, once to measure the expected service quality and once to measure the perceived service quality.

There are arguments that support the use of SERVQUAL over SERVPERF and vice versa (Jain & Gupta, 2004) however the balance seems to be in favour of SERVPERF over SERVQUAL (Nadiri & Hussain, 2005). Many studies recommend the use of the perception of actual service performance measurement (SERVPERF) because it overcomes SERVQUAL problems (Lee & Lambert, 2000; Siu & Cheung, 2001; Nadiri & Hussain, 2005; Welsh & Raven, 2006). Other studies have found that measuring the perception or performance is more reliable and valid (Dabholkar, Thorpe & Rentz, 1996; Babakus, Bienstock & Van Scotter, 2004; Caro & Garcia, 2007).

The industries where SERVQUAL has been used to measure service quality are: real estate agencies, physicians' clinics, dental school, automobile companies; accounting firm, department stores, banks, dry cleaning, higher education, fast food (Parasuraman, Zeithaml & Berry, 1994), telecommunication (Wal, Pampallis & Bond, 2002), information systems (Jiang, Klein & Crampton 2000) and health care (Kilbourne *et al.*, 2004). Additionally it has been used to measure service quality within airlines, hotels, travel agencies, financial services and public sector (Prayag, 2007). SERVPERF has been used to measure service quality in the following industries: retail (Mehta, Lalwani & Han, 2000), banks (Baumann *et al.*, 2007), higher education (Badri, Abdulla & Al-Madani, 2005), hotels (Nadiri & Hussain, 2005), public transportation (Perez *et al.*, 2007), airlines (Cunningham & Young, 2002) and B2B (Peterson, Gregory & Munch, 2005). Whilst SERVQUAL and SERVPERF are widely used it is argued later (The need for a modified scale section) that scales should be more specific to the industry.

In recent years, the emphasis has been on developing industry specific service quality scales rather than using a generic scale for measuring service quality across all industries and countries (Akbaba, 2006; Caro & Garcia, 2007) as it is not possible to generalise the service quality dimensions among all types of services. Moreover, there are different types of service which means the way the services are built and the context in which they are delivered vary from service to service (Chowdhary & Prakash, 2007). This also suggests the need for industry specific scales.

2.7 SERVQUAL Discussions and Criticism

Even though SERVQUAL is popular it has been criticised by some researchers (O'Neill & Palmer, 2003; Karatepe, Yavas & Babakus, 2005), but the criticism has been mainly on the theoretical and operational side of the model (Lee, 2007; Prayag, 2007). According to Buttle (1996) the criticism can be divided into two parts: the theoretical and operational criticism.

- The theoretical criticism is divided into:
 - Paradigmatic objections: It would be more suitable if the model is based on the attitudinal model and not the disconfirmation model.
 - Gaps model: There is a lack of evidence to suggest customers assess service in terms of perception minus expectation.
 - Process orientation: The focus of the SERVQUAL is on the process of the service rather than the outcome of the service
 - Dimensionality: The five dimensions are not applicable in all industries and contexts; in addition, that there are inter-correlations amongst the five dimensions which weakens the model.
- Operational criticisms:
 - Expectation: Customers do not use expectations to evaluate services and there is no measure of absolute expectations.
 - Item composition: The number of items under each dimension is not enough to measure that dimension.
 - Moment of truth: The moment of truth might change from time to time when customers are evaluating the service.
 - Polarity: The negative items in the scale cause confusion among respondents
 - Two administrations: Measuring service quality before and after the service results in customer confusion.
 - Variance extracted: The variance explained in service by the SERVQUAL instrument is low.

Gronroos (2007b) from the Nordic school summarises the criticisms of measuring expectations of service quality compared to perception of service quality as follows: Measuring expectations before the service might be problematic because the customer may

be thinking of experiences rather than expectations. Moreover, measuring expectations usually takes place during or sometimes after the service process which may be biased by the customer's experience. Furthermore, measuring expectations might occur twice if customers are comparing their experience after the service with prior experience before the services. Then, the expectation is in fact being measured twice (process dimension).

Palmer (2008) summarises the problems associated with using the gap model as follows:

- Expectations might be part of the experience a customer has during the consumption of the service and thus cannot be used as a benchmark. Measuring the difference between the customer's expectations and perception of the actual service has been heavily criticised because it is difficult for customers to have knowledge about the product or service before consumption and the fact that it is unlikely that customers will compare their service expectations against the actual perception of the service.
- Using a performance only model might be superior to using the gap model because customers are asked about their experiences after the consumption of services where their expectations are influenced by their experiences. Also, there is no agreement whether to ask customers about their experiences before or after the service.
- The gap model has psychometric problems, reliability, discriminate validity and variance problems.
- The five dimensions are not universal and the scale is not generic; therefore specific scales are more appropriate for different industries. The inability to replicate the five SERVQUAL factors makes the scale weak and consequently makes it more difficult for researchers to generalise their findings.
- SERVQUAL might be more appropriate in pure services such as retail banks but less appropriate where there is an outcome such as investment.

Other criticisms include: SERVQUAL is not a successful measure of service quality in all industries; results of many studies have found that five dimensions are not always replicated and sometimes the SERVQUAL results in one dimension or as many as ten dimensions, which means there is a need for industry specific scales (Nadiri & Hussain, 2005). Service quality instruments should not be global but rather specific to the context of research (Olorunniwo & Hsu, 2006). SERVQUAL also has limited testing in the retail

setting and has not been very successful in retail stores that have a mixture of products and services (Gaur & Agrawal, 2006). Researchers tested SERVQUAL in a retail environment and found it to be an invalid measure of service quality. It was also found to be unsuitable, without modifications, for a retail store because it is not a pure service setting (Dabholkar, Thorpe & Rentz, 1996; Mehta, Lalwani & Han, 2000).

The SERVQUAL criticisms could be summarised into these main concerns: the use of the gap scores to measure service quality and the psychometric properties of the scale (Ladhari, 2009a). The gaps scores depend on measuring the perception and the expectations of service quality. The psychometric properties include the reliability, validity and the number of dimensions that have been the most important criticism of the scale (Ladhari, 2009a). Whilst the SERVQUAL is widely used, the problems associated with the scale can not be ignored. It is obvious from the previous discussions that using the gap model is problematic and the five dimensions are not universal which leads to the need for a modified scale.

2.8 Retailing

According to Cox & Brittain (2004, p.3) “historically retailing has been viewed as the sale of goods to consumers through retail shops”. However, the face of retailing has changed and is now defined as the process of selling goods or services to end users for personal or family use (Cox & Brittain, 2004; Dibb *et al.*, 2006; Levy & Weitz, 2009; Kotler & Armstrong, 2010). Levy & Weitz (2009, p.6) view retailing as a “set of business activities that adds value to the products and services sold to consumers for their personal or family use”.

Varley & Rafiq (2004), suggested retailing can be described as a process whereby the business buys in bulk and then sells to customers in pieces or small quantities such as a clothes shop that buys a dozen pairs of jeans and then sells them individually to customers. However, buying in bulk and selling to customers is not the only type of retailing because providing a service is also considered as retailing such as a haircut or dry cleaning (Varley & Rafiq, 2004). Any business that sells a product or provides a service to end users is providing a retailing task which could be an in store sale, mail sale, internet sale, telephone sale or even a vending machine sale (Dunne & Lusch, 2008). Levy & Weitz (2009) proposed that retailing is not limited to selling products in stores, but also involves services such as pizza delivery, doctor’s exam, sleeping in a hotel and movie rentals. Other types

of retailing that are not done in stores are internet sales, direct sales of cosmetics to customers and catalogue sales. According to Varley & Rafiq (2004, p.4) “it is the type of customer, rather than the activity that distinguishes retailers from other distributive traders; the distinction being that a retailer sells to final consumers”.

Retailers must sell to end users because it differentiates them from other wholesalers or distributors. In the UK and US governments, a business is classified as a retailer only if the business has more than 50% of its sales to customers (Varley & Rafiq, 2004; Ogden & Ogden, 2005). End users or final consumers are individuals or families that buy the product for personal consumption. If a retailer sells their products to hospitals or universities then this transaction is not considered a retail transaction (Ogden & Ogden, 2005) because they are not selling their products to the end user.

Retailers who sell physical goods are different from retailers who sell services and the distinction between the two is made based on the four service characteristics which are intangibility, heterogeneity, inseparability and perishability (Winsor, Sheth & Manolis, 2004). The differentiation between physical goods and service retailing is important because both goods and services require different marketing strategies (Winsor, Sheth & Manolis, 2004) and because customers might use different criteria for evaluating them (Vazquez *et al.*, 2001). According to Torlak, Uzokurt & Ozmen (2010) to meet the requirement of consumers in a retail context, retailers must emphasize the importance of product quality and service quality.

In 2005 the service sector in the European Union represented 71.6% of the GDP with around 75% employed in the service sector (Palmer, 2008). The service sector is gaining more importance these days because it is larger than the manufacturing sector in North America and Europe, and accounts for 50% to 69% of the GDP; and employment in this sector has grown from 30% to 85% in the last decade (Gupta, McDaniel & Herath, 2005). This does not include the figures from manufacturing firms that have started to provide services which were not provided in the past (Gupta, McDaniel & Herath, 2005). The importance of retail shops, which are part of the service sector, is that more than one third of customer spending goes through retail shops (Varley & Rafiq, 2004). The retail industry in the UK is estimated to be worth over £200 billion a year (Kent & Omar, 2003). Cox & Brittain (2004) summarise the importance of the retail shops as follow:

- They employ over 3 million people in the UK which makes it the second largest employer

- They represent 23% of the GDP
- Around 35% of the consumer spending goes through retail shops
- Value added tax is collected from shops
- They sell to end consumers so it is the final link in the production and distribution channel

2.8.1 The Importance of Retail Service Quality

Researchers have found that one of the most important factors that affect the consumer's choice of store is service quality (Swoboda *et al.*, 2007); for this reason it is important to understand retail service quality. According to Zeithaml, Bitner & Gremler (2009, p.111) "In cases in which customer service or services are offered in combination with a physical product, service quality may also be very critical in determining customer satisfaction". Therefore, it is important to maintain high standards when interacting with customers and delivering the service-product to customers (Varley & Rafiq, 2004).

Some researchers see retail service quality as being the same as service quality and others make a distinction between the two (Gaur & Agrawal, 2006) as retail shops offer both a service and a product (Siu & Cheung, 2001). The best way to describe a retail business is to think of it as a continuum with products or tangible goods at one end and services or intangible goods at the other end (Varley & Rafiq, 2004). Service quality is important in every aspect of the business and it helps in creating a positive image for the retailer's brand (Swoboda *et al.*, 2007). Therefore, customer service must be the focus of a successful retail business that has loyal customers (Paulins, 2005).

One of the early classifications of retailing is provided by Gagliano & Hathcote (1994) who classified retailing into two categories; store service and sales service. *Store service* includes returns and exchange, availability and variety of the merchandise, quality and reliability of service and after sales. *Sales service* includes: attitude and knowledge of salesmen, timely service and attention to customers. This classification makes it easier for the managers to focus on the area of service that necessitates improvement (Gagliano & Hathcote, 1994). Another classification that has been more popular is the classification of Dabholkar, Thorpe & Rentz (1996) who argue that retail service quality has five dimensions; physical aspects, reliability, personal interaction, problem solving and policy. There have been other classifications of retail service quality which are summarised in **Table 2.4** below:

Table 2.4: Retail components

Author	Retail Components
Teas (1994)	<p>1.Upscale: high/low quality of merchandise, prestigious store, appealing physical facilities, high/low price</p> <p>2.Merchandise: selection and sales and promotions</p> <p>3. Transaction Effectiveness: checkout lines, prompt service and personal attention</p> <p>4. Responsiveness: employees willing to help, easy to get questions answered and problem solving</p>
Chowdhury, Reardon & Srivastava (1998)	<p>1.Employee Services: pleased with the services and friendly employees</p> <p>2. Product Quality: high quality products and branded products</p> <p>3. Atmosphere: appearance of the store</p> <p>4. Convenience: ease of getting into the store</p> <p>5. Prices: the prices at the store are fair</p>
Gomez, McLaughlin & Wittink (2004)	<p>1.Quality such as friendliness of cashiers, speed of checkout and cleanliness of parking lot</p> <p>2. Customer service such as variety and quality of products and availability of products</p> <p>3. Value such as value for money and prices</p>
Morschett, Swoboda & Foscht (2005)	<p>1.Quality of performance such as quality and store design</p> <p>2.Scope of offers such as variety of products and one stop shopping</p> <p>3.Price level such as prices of products</p>

Table 2.4 shows the various classifications of service quality and the next section discusses the most popular method of measuring retail service quality. The link between

the different classifications in the table above and the most popular methods are mentioned at the end of the measuring retail service quality section.

2.8.2 Measuring Retail Service Quality

Retailing for physical goods is different from pure service retailing which suggests that consumers might use different criteria for evaluating store retailers; therefore it is more appropriate to use a scale that is specific for store retailers (Vazquez *et al.*, 2001). The most frequently used scale to measure retail service quality is the retail service quality scale (RSQS) which was developed by Dabholkar, Thorpe and Rentz (1996) as an alternative to the SERVQUAL (Wong & Sohal, 2002; Gaur & Agrawal, 2006). The need to develop a more specific scale for retail service quality was essential because stores offer a mix of products and services. As a result of this, Dabholkar, Thorpe & Rentz developed a new scale in 1996 which was based on the SERVQUAL scale. The new scale consisted of 17 items from the SERVQUAL scale and 11 new items which were added based on the research they carried out. The new scale consisted of 28 items to measure retail service quality. The scale is similar to SERVPERF in that it measures the perception of service quality once unlike the SERVQUAL that uses the scale twice, once to measure the expected service quality and once to measure the perceived service quality.

According to Dabholkar, Thorpe & Rentz (1996, p.6), “retail service quality is a hierarchical factor structure”, which means that the retail service quality has dimensions and sub-dimensions. Customers view retail service quality at dimension level, sub-dimension level and an overall level. The retail service quality scale consists of 28 items across five dimensions; and six sub-dimensions to measure the perceived level only of retail service quality as illustrated in **figure 2.7** below.

Figure 2.7: Hierarchical structure of Retail Service Quality

Source: Dabholkar, Thorpe & Rentz, (1996, p.6)

Figure 2.7 shows the five dimensions of retail service quality and the six sub-dimensions which are: 'physical aspects' with two sub-dimensions *appearance* and *convenience*, 'reliability' with two sub-dimensions, *promises* and *doing it right*; 'personal interaction' with two sub-dimensions *inspiring confidence* and *courteousness/helpfulness*, 'problem solving', and 'policy'. The RSQS scale used a 5 point rating scale by using 1 = strongly disagree and 5 = to strongly agree.

Below is an explanation of the dimensions followed by **Table 2.5** that illustrates the dimensions and sub-dimensions of the RSQS.

The five dimensions of the Retail Service Quality Scale are:

- **Physical aspects:** appearance of the store and store layout that makes it convenient for customers. This dimension has two sub-dimensions, appearance and convenience. According to Dabholkar, Thorpe & Rentz (1996), the store image as well as the cleanliness of the store, the cleanliness of the public facilities, the store layout and ability to find products easily have been important elements in previous research. The retail literature suggests the importance of the store layout and design (Teas, 1994; Gomez, McLaughlin & Wittink, 2004). This dimension is similar to the tangibles dimension of service quality but includes additional items such as the convenience of the shop and the store layout (Kim & Jin, 2002).

- Reliability: keeping promises, doing things right and the availability of products. This dimension is similar to the reliability dimension of the SERVQUAL. It includes *keeping promises* and doing it right as sub-dimensions. Dabholkar, Thorpe & Rentz (1996) pointed out that keeping promises and doing it right, that were identified during their interviews, were important sub dimensions. This dimension is similar to the reliability dimension of the SERVQUAL the difference being that problem solving is part of reliability in the SERVQUAL scale and in the RSQS it is a separate dimension. Another difference between the reliability dimension in the SERVQUAL and the RSQS is that the availability of products is part of the reliability dimension in the RSQS but not in the SERVQUAL.
- Personal interaction: employees are helpful, courteous and treat customers with respect. The sub dimensions are inspiring confidence courteousness/helpfulness. It includes inspiring confidence and courteousness/helpfulness as sub-dimensions. This dimension is a combination of the 'responsiveness' and 'assurance dimension' of SERVQUAL and includes the employee's *helpfulness* and the ability to instil trust (Kim & Jin, 2002). This dimension was suggested as a separate dimension because interviews revealed the importance of feeling confident, feeling comfortable when shopping at the store and the help customers receive from employees of the store Dabholkar, Thorpe & Rentz (1996).
- Problem solving: employees are trained to handle returns and to deal with complaints. This is a new dimension that is different to the dimensions of SERVQUAL and was added as a part of service recovery (Kim & Jin, 2002). This dimension has no sub-dimensions and was added to deal with the interaction between the store employees and the customers, and the manner in which problems are handled. Literature reviewed also suggests the importance of returning and exchanging items and the way employees solve those problems (Dabholkar, Thorpe & Rentz, 1996).
- Policy: this includes the store policy such as operating hours, payment methods and so on. This is also a new dimension, which is not similar to any of the SERVQUAL dimensions; it has no sub-dimensions and measures the service quality that is affected by the store policies such as the opening hours of the store, parking and quality of products. This dimension was added based on literature reviews and the interviews (Dabholkar, Thorpe & Rentz 1996).

Table 2.5 below shows all the retail service quality dimensions, sub dimensions and the questions on the scale that measure each dimension. The first column in the table shows the five RSQS dimensions, the second column shows the sub dimensions under each of the dimensions. The third column shows the questions/ items in the scale that measure each dimension; as mentioned earlier there are a total of 28 items that measure retail service quality.

Table 2.5: Retail service quality dimensions, sub-dimensions and items

Dimension	Sub-dimension	Item
Physical aspects	Appearance	The store has modern-looking equipment and fixtures
	Appearance	The physical facilities at this store (such as fixtures and fittings) are visually appealing
	Appearance	Materials associated with the store's service (such as shopping bags, catalogues or statements) are visually appealing
	Appearance	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms)
	Convenience	The store layout at this store makes it easy for customers to find what they need
	Convenience	The store layout at this store makes it easy for customers to move around in the store
Reliability	Promises	When this store promises to do something by a certain time, it will do so
	Promises	This store provides its services at the time it promises to do so
	Doing it right	This store performs the service right the first time
	Doing it right	This store has merchandise available when the customers want it
	Doing it right	This store insists on error-free sales transactions and records
Personal interaction	Inspiring Confidence	Employees in this store have the knowledge to answer customer's questions

	Inspiring Confidence	The behaviour of employees in this store instils confidence in customers
	Inspiring Confidence	Customers feel safe in their transactions with this store
	Courteousness/helpfulness	Employees in this store give prompt service to customers
	Courteousness/helpfulness	Employees in this store tell customers exactly when services will be performed
	Courteousness/helpfulness	Employees in this store are never too busy to respond to customer's requests
	Courteousness/helpfulness	This store gives customers individual attention
	Courteousness/helpfulness	Employees in this store are consistently courteous with customers
	Courteousness/helpfulness	Employees of this store treat customers courteously on the telephone
Problem solving	None	This store willingly handles returns and exchanges
	None	When a customer has a problem, this store shows a sincere interest in solving it
	None	Employees in this store are able to handle customer complaints directly and immediately
Policy	None	This store offers high quality merchandise
		This store provides plenty of convenient parking for customers
		This store has operating hours convenient for all its customers
	None	This store accepts most major credit cards
		This store offer its own credit cards

The use of the sub dimensions has been criticized because there is insufficient empirical evidence to support the hierarchical structure (Ladhari, 2008). As discussed earlier Martinez & Martinez (2010) suggests that RSQS is a multidimensional reflective model, but these reflective models have operational problems specially when it comes to finding relationships between service quality and other variables. Another criticism is that RSQS has dimensions and sub-dimensions, why not have sub-sub-dimensions which requires complicated statistical procedure (Martinez & Martinez, 2010).

Table 2.6 below shows the similarities and differences between the SERVQUAL, SERVPERF and RSQS. As mentioned earlier the difference between the SERVQUAL and the SERVPERF is the number of times the scale is administered. The RSQS differs from the SERVQUAL in the names of the dimensions, the number of items in the scale and the number of times the scale is administered. The difference between the RSQS and SERVPERF is the names of the dimensions and the number of items in the scale. The table below shows the names of the dimensions for the SERVQUAL, SERVPERF and RSQS. The SERVQUAL and SERVPERF dimensions are identical. The RSQS is similar to the SERVQUAL in three dimensions; physical aspects are similar to tangibles; reliability is the same on both scales and personal interaction is comparable to responsiveness and assurance. The problem solving and policy dimensions are new additions which are not similar to any dimensions of the SERVQUAL. The problem solving dimension was introduced by Dabholkar, Thorpe & Rentz (1996) because store retailing differs from service retailing in that customers return and exchange products. The policy dimension was added by Dabholkar, Thorpe & Rentz (1996) to establish whether the store policies reflect customer needs.

Table 2.6: Differences between SERVQUAL, SERVPERF and RSQS

Scale	SERVQUAL	SERVPERF	RSQS
Dimensions	tangibility	tangibility	physical aspects
	reliability	reliability	reliability
	responsiveness	responsiveness	personal interaction
	assurance	assurance	problem solving
	empathy	empathy	policy
Number of items	22	22	28
Number of times the scale is administered	Twice: once to measure perceived service quality and once to measure expected service quality	Once to measure perceived service quality	Once to measure perceived service quality

As mentioned earlier, the RSQS has two dimensions which are different to the SERVQUAL and SERVPERF dimensions and which are more relevant to retail service quality. These are the problem solving and policy dimensions.

The RSQS dimensions have similarities with retail components discussed earlier in the importance of retail service quality section and presented earlier in **Table 2.4** which presents the retail components suggested by Teas (1994), Chowdhury, Reardon & Srivastava (1998), Gomez, McLaughlin & Wittink (2004) and Morschett, Swoboda & Foscht (2005). Below are the similarities between the RSQS dimensions and the retail components:

- The retail components in Teas' (1994) study are similar to the RSQS dimensions. An example of this is the quality of merchandise; this is similar to a question on the RSQS scale which asks if this store offers high quality merchandise. The second component is selection and sales promotion; this is similar to a question on the RSQS which asks if materials associated with the store are appealing. The third component which is the prompt services, and the last component which is responsiveness, are also similar to questions under the personal interaction dimension on the RSQS scale.
- Chowdhury, Reardon & Srivastava (1998) conducted a study consisting of five components. A close look at these components shows that all of the components, with the exception of price, are part of the RSQS scale.
- The study by Gomez, McLaughlin & Wittink (2004) consists of three components. The first two components are similar to questions on the RSQS. The third component which is value for money is not part of the RSQS scale.
- The study by Morschett, Swoboda & Foscht (2005) consists of three components of which the first two are similar to questions on the RSQS scale. The third component is price and is not part of the RSQS scale. Price has been mentioned in three out of the four studies mentioned above; however price is not measured in the RSQS, which is consistent with other studies that did not consider price as part of service quality (Wong & Sohal, 2002).
- **Appendix 1** shows studies that used the RSQS after the scale was developed by Dabholkar, Thorpe & Rentz (1996). The first column shows the researcher, the second column shows the country and industry, the third column shows the scale used and the tests performed, the fourth column shows the number of scale items and the dimensions and the fifth column shows the changes and results of the study.

Most studies in the **Appendix1** indicate the need to modify the service quality scale to be more context and culture specific.

2.9 The Need for a Modified Scale

As discussed earlier there are many similarities between the SERVQUAL/SERVPERF and the RSQS; the RSQS used 17 items from the SERVQUAL scale and 11 items were added based on research. The arguments presented in this section are for the need to develop a more specific scale and refer to the SERVQUAL or RSQS.

There is a broad agreement that scales need to be modified to be more suitable for the context of the study; and many studies conducted in non-English speaking countries that measured service quality used a modified version of the SERVQUAL or SERVPERF (Carrillat, Jaramillo & Mulki, 2007). An instrument that is applied in the West will not fit Asian markets without modifications or without verifying the validity and reliability of the scale in the Asian countries (Cui, Lewis & Park, 2003). The scales that are developed for a specific country or context might not be suitable for another country or context because economic and socio-cultures might be different from country to country or even from sector to sector (Kumar, Kee & Nanshor, 2009). Research has found that response style such as item bias, the wording of the items and the scale layout differs between countries which might have an impact on the relationship between variables (Diamantopoulos, Reynolds & Simintiras, 2006). This means that researchers must be careful when adapting scales from other countries because adapting the scale might alter the meaning of the items (Diamantopoulos, Reynolds & Simintiras, 2006). “If consumers' retail service experiences in transition economies can be shown to differ significantly from those of consumers in developed markets, then the use of Western-based items to measure these experiences can be questioned” (Merrilees, McKenzie & Miller, 2007, p.216).

Researchers believe that the SERVQUAL, although a good measure of service quality, should not be used without modifications in other industries and therefore there is a need for industry specific measures (Jabnoun & Khalifa, 2005; Akbaba, 2006; Caro & Garcia, 2007; Ladhari, 2008). According to Karatepe, Yavas & Babakus (2005) there is a growing opinion amongst researchers for the need for context specific measures which means ensuring the scale is industry specific and/or culture specific. The more specific the service quality scale the more relevant it is to the context and the more relevant the information is for managers.

Service quality is perceived differently in different cultures and the Retail Service Quality Scale (RSQS) may not be able to measure all the different dimensions that exist in different cultures (Imrie, Cadogan & Mcnaughton, 2002; Gaur & Agrawal, 2006). The reason the service quality scales might not be able to measure all the dimensions is because RSQS and SERVQUAL were developed in USA. The USA is a highly individualistic society and thus the SERVQUAL scale is not appropriate for different cultures and therefore the validity of the scale is questioned (Carrillat, Jaramillo & Mulki, 2007). Therefore, managers should avoid using the generic SEVQUAL scale for measuring service quality and instead develop a culturally sensitive scale (Imrie, Cadogan & Mcnaughton, 2002). According to Meng *et al.* (2009) the SERVQUAL and RSQS should not be applied to other cultures without modification as retail customers in one culture may differ from customers in another culture which makes the generalisability of the scale questionable. Meng *et al.* (2009) argue that questions that are important in one culture might not be important in another culture which makes the scales inaccurate in cross cultural studies.

Many companies that operate in more than one country are finding the generic measurement of service quality to be less meaningful in other countries or cultures, thus the need for country or culture specific scales (Saunders, Lewis & Thornhill, 2009). Evidence from the research suggest the need to consider culture when modifying scales this has been identified in the last column of the table in the **Appendix 1**. This supports the needs to develop a scale that is appropriate for the specific context and culture. Once the scale is modified to be more culturally sensitive, the influence of culture on service quality could then be tested. Furrer, Liu & Sudharshan (2000a) suggest that other dimensions of service quality might exist in other cultures. Also, it seems that cultural dimensions have less influence on service quality dimensions when the interaction between service providers and customers is low.

From a review of the literature it is important to modify the service quality scale when it is measuring service quality in a different context or country. Most of the scales were developed in Western countries and therefore need modification to be more context or country specific. This is evident by the following examples of scales that were modified to be more context or country specific:

- In a study that used SERVQUAL to measure IT service quality in higher educational institutes in the United Arab Emirates (UAE), it was proposed that an

industry specific scale is more appropriate to measure service quality in the UAE (Badri, Abdulla & Al-Madani, 2005). Although Badri, Abdulla & Al-Madani (2005) did not modify the SERVQUAL scale for their study, based on the results from their study they recommended modifying the SERVQUAL to be more industry specific.

- In a study that took place in Thailand and Japan on service quality for banks and restaurants, formality, a new dimension, was found relevant in international studies and the authors suggested the need to take into consideration other dimensions when conducting studies in non-western countries (Witkowski & Wolfenbarger, 2001).
- Findings from a study on the influence of culture on the perception of service quality recommended the need to refine the SERVQUAL scale by adding or removing items or dimensions to make the scale more culturally meaningful (Kueh & Voon, 2007). Furthermore, the service quality dimensions are influenced by the cultural background of the customers and culture has an effect on customer satisfaction (Tsoukatos & Rand, 2007). For example Arab customers will perceive service quality dimensions differently to British customers because Arabs are more of a collectivist society and British is more of an individualistic society.
- In a cross cultural study that involved a sample of Chinese and US students on the effect of social perception on store image it was found that Chinese students are more aware of the social cues in the retail store environment than the US students; the social cues included in their study were personalised customer service and in-store graphics (Hu & Jasper, 2007). Hu & Jasper (2007) further noted that personalised customer service includes getting to know the customer on a personal basis and the in-store graphics have a social meaning and send a welcoming signal to customers.
- Jabnoun & Khalifa (2005) customized a scale for measuring service quality in banks in the United Arab Emirates (UAE). Their study resulted in four dimensions: personal skills, reliability, values and image. Image and value are two new dimensions that are context specific to the banks and the UAE culture which emphasizes the need to customize scales. However, they found that customers of Islamic banks place different importance on service quality dimensions than customers of non-Islamic banks.
- Al-Tamimi & Al-Amiri (2003) modified a scale for measuring service quality in banks in the UAE. The scale consisted of 36 items and five dimensions; tangibles,

reliability, assurance, responsiveness and empathy. They found that all service quality dimensions are positively significant with overall service quality and that empathy and tangibles were the two most important dimensions.

Ladhari (2008) studied 30 industry specific scales and his findings are summarised below:

- There is a need for industry and culture specific scales.
- Service quality has been measured among many industries including restaurants, career centres, hospitals, higher education, banks, internet retail, hotels and many more. Service quality has been measured in many different countries including United Kingdom, USA, United Arab Emirates, Australia, Japan, India, Korea and Hong Kong.
- The dimensions of service quality range from one dimension to as many as ten. The number of dimensions was dependent on the service context and culture. Some scales measured the expectation less the perception while other scales looked at the perception only or expectations only. The functional quality was used to measure service quality more than technical quality.
- The number of items on the scale ranged from 14 to 75. Sample sizes ranged from 70 to 5531. Many studies used factor analysis alone; some used factor analysis with correlation analysis. Most studies used Cronbach's alpha to measure the scale's reliability.

More evidence on the need to modify a scale to be more country or context specific is listed in **Table 2.7** below. The first column shows the author and the year, the second column shows the country where the study was conducted, and the third column shows the results of the study. Again, the different studies suggest that scales are more appropriate when modified to be more country or context specific because new dimensions might appear.

Table 2.7: Studies that measured service quality in different cultures

Author	Country & Scale	Results
Mattila (1999)	Singapore Qualitative Interviews & Scenarios	A study on luxury hotels found that there are differences between Western and Asian customers; Western customers rely more on tangibles when evaluating service quality than Asian customers. Cultural differences may exist when asking for personalised services. The focus of the study was on value as perceived by customers rather than satisfaction. American customers and Asian customers rated life values differently.
Furrer , Liu & Sudharshan (2000b)	USA, Singapore, and Swiss students Hofstede (1980, 1991) cultural dimensions and the SERVQUAL dimensions	The importance of service quality dimensions were found to be different for different cultures, in a study that compared bank service quality for American, Singaporean and Swiss students.
Witkowski & Wolfinbarger (2001)	Thailand and Japan SERVQUAL	Formality, a new dimension was found to be important in Thailand and Japan
Voss <i>et al.</i> (2004)	UK and USA SERVQUAL	In a study on the impact of service quality on satisfaction among British and American customers; it was found that there are differences between British and American customers. British customers in general were more tolerant of bad service than American customers. These differences are an indication that culture does have an influence on service quality
Badri, Abdulla & Al-Madani (2005)	UAE Modified SERVQUAL	Industry specific scale is more appropriate in the UAE.
Kueh & Voon (2007)	Malaysia	Items should be added or removed to make the scale more appropriate for the country where the study is being conducted.

	26-item cultural scale and SERVQUAL	
Tsoukatos & Rand (2007)	Greece 20 item cultural scale and an insurance service quality scale (GIQUAL)	The study found that 23 out of 25 of the hypotheses found a link between service quality dimensions and cultural dimensions.
Hu & Jasper (2007)	USA & China A combination of scales such as perception of merchandise, perception of service quality, store affect and other scales.	There are differences between the Chinese and American students regarding store image.
Merrilees, McKenzie & Miller (2007)	Canada and Estonia Retail scale adapted from Rinne and Swinyard (1995)	In a retail marketing strategy study of Estonian and Canadian customers, the authors concluded that there are differences in brand awareness and the level of service provided. Estonian ratings on the retail scale were lower than the Canadian ratings because retail in Estonia is less developed than in Canada. The differences between the two countries are due to cultural differences between the two groups.

Many studies used the RSQS scale as a context specific scale for retail stores, and especially stores that sell a combination of products and services. The studies that used RSQS are listed in **Appendix 1** and show those using the RSQS after the scale was developed by Dabholkar, Thorpe & Rentz (1996).

2.10 Retail Service Quality and Culture

According to Hofstede & Bond (2001, p.6) national culture is “the collective programming of the mind that distinguishes the members of one category of people from those of another.” Others define culture as beliefs, norms and customs that are shared by a group of people and possess a distinctive heritage (Berman & Evans, 2007; Levy & Weitz, 2009). A fundamental issue in society is the degree of individualism in the society. (Hofstede & Hofstede, 2005) states that culture is explained using the five cultural dimensions; power distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance and long-term orientation; a full explanation of the dimensions can be found in **Appendix 2**.

Research has shown that differences between countries regarding service quality could be related to cultural factors (Merrilees, McKenzie & Miller, 2007). It is important for retailers to be responsive to culture because there are differences in the way the customer perceives the physical aspects of the shop, the store layout and the service standards (Baker & Hart, 2008). There could also be differences in the management of retail shops in different countries which might require a specific management style suitable for that country; “retailing is an economic transaction, but also in many cases is fundamentally a social interaction” (Baker & Hart, 2008, p.603). According to Tsoukatos & Rand (2007) culture has an influence on the service quality dimensions and the way customers view these service quality dimensions. They also suggest that culture influences customer satisfaction because of the relationship between service quality dimensions and satisfaction. Culture was also found to have a positive effect on domestic store loyalty that is the individual’s cultural values influence their loyalty to the store (Straughan & Miller, 2001). This suggests that countries that have collectivist societies are more likely to be loyal to domestic retailers than individualist societies (Straughan & Miller, 2001).

There are different types of products and services and the more the service involves interaction between customers and employees the more culture has an influence; and the less interaction between customers and employees the less cultural elements influence the service (Furrer, Liu & Sudharshan, 2000a). There may even be some differences in culture

between customers in the same country and this is due to people's life experiences from different cultural backgrounds. According to Baker & Hart (2008, p.603), "any consideration of retailing should begin with the country or local environments in which, and the consumers with which, retailing interacts". In reviewing the service quality literature, some studies tried to establish a link between cultural dimensions and service quality dimensions (Mattila, 1999; Furrer, Liu & Sudharshan, 2000b; Kueh & Voon, 2007; Tsoukatos & Rand, 2007), therefore there is a need to explore this relationship. To determine the relationship between national culture and service quality, one needs to explore how national culture dimensions influence service quality dimensions.

- **Power distance:** According to Donthu & Yoo (1998), customers depend on service providers when receiving their service; therefore the service providers are more powerful than their customers. Consequently, customers that have high power distance tend to depend on service providers with higher power than themselves and are more tolerant to employees' mistakes (Kueh & Voon, 2007). Mattila (1999) suggested that customers in luxury hotels with high power distance exert power over weak employees. Powerful customers with high power distance expect high levels of services, therefore reliability, responsiveness and empathy are important whereas assurance is not important because customers do not look for assurances from weak employees (Tsoukatos & Rand, 2007).
- **Individualism and collectivism:** According to Kueh & Voon (2007) individualists are self-dependent, emotionally detached from the organisation and achievement is important. On the other hand, collectivist societies are expected to be loyal to their group and they think of themselves as being part of a group. Therefore, it is expected that collectivist societies are more tolerant to the mistakes of the service providers (Kueh & Voon, 2007). Culture affects the buying decisions both in individualistic cultures and in collectivist cultures; individualistic cultures are self-dependent when making buying decisions whereas the collectivist culture depend on their families to help them with the buying decisions (Levy & Weitz, 2009). Consequently, in a collectivist society, the family's approval of the goods is more important to the consumer than the goods themselves (Levy & Weitz, 2009). Social needs such as friendship and acceptance are important in the east therefore, the eastern cultures spend more time with family and friends than people in western cultures (Wilson *et al.*, 2008). Research found that in cultures with high levels of individualism, customers demand a high level of service due to the fact that they

are independent and self centred (Furrer, Liu & Sudharshan, 2000a). Cultures with high levels of individualism also have a positive relationship between individualism and tangibles and this prevents customers from becoming close to the service provider (Furrer, Liu & Sudharshan, 2000a). Furrer, Liu & Sudharshan, (2000) found that individualism is negatively correlated with assurance and this is because individualists have a high level of self-confidence and do not need any assurances.

- **Masculinity and Femininity:** In societies with a high level of masculinity there is a difference between the importance of the service quality dimensions depending on the gender of the service provider. It is important for male service providers to be professional, reliable, responsive and assuring for customers with a high level of masculinity; however customers expect female service providers to show more empathy (Furrer, Liu & Sudharshan, 2000b). Customers appreciate feminine values such as being friendly and helpful and expect the same treatment from the employees regardless of their gender (Kueh & Voon, 2007).
- **Uncertainty Avoidance:** According to Furrer, Liu & Sudharshan (2000a) in cultures with strong uncertainty avoidance there is a need to reduce ambiguity among all service quality dimensions. Kueh & Voon (2007) argue that tangibles are important in reducing the ambiguity and in assuring customers that the place is well maintained which gives an impression that the service level has not deteriorated. Therefore, it is expected that customers with high uncertainty avoidance expect higher levels of services (Kueh & Voon, 2007). Tsoukatos & Rand (2007) point out that customers with strong uncertainty avoidance consider reliability, responsiveness and assurance to be important.
- **Long-versus short term orientation:** Furrer, Liu & Sudharshan (2000a) highlight that in societies with long term orientation it is predicted that long term relationships with service providers are established. Long term societies have to be convinced that it is sensible to return to the same service provider therefore, their expectations are higher when it is concerned with the service quality dimensions (Kueh & Voon, 2007). Customers with long term orientation find excuses for their preferred service providers when they deliver bad services because they want to retain their relationship with them. Therefore, reliability is more important than responsiveness, assurance and empathy (Tsoukatos & Rand, 2007).

Results from research show that not all cultural dimensions have an influence on service quality dimensions. A study by Kueh & Voon (2007) found that the cultural dimension of uncertainty avoidance had a positive correlation with all service quality dimensions. Another example is the results of a study undertaken by Tsoukatos & Rand (2007) who found an inverse relationship between power distance and reliability, responsiveness and assurance. They also found there was no relationship between individualism and reliability, responsiveness, assurance and empathy. Tsoukatos & Rand (2007) also found an inverse relationship between masculinity and reliability, responsiveness and assurance. There is a positive relationship between uncertainty avoidance and reliability, responsiveness and assurance and a positive relationship between long term orientation and the importance of reliability (Tsoukatos & Rand, 2007).

Furrer, Liu & Sudharshan (2000a) cautioned from finding the relationship between the dimensions of service quality and cultural dimensions in different cultures without modifying the service quality scale to be more appropriate for the culture where it is being studied. There seems to be only one study by Tsoukatos & Rand (2007) which modified the SERVQUAL to be more specific for the insurance industry in Greece and then tested the link between the new service quality scale and cultural dimensions. More studies are needed to confirm the relationship between service quality dimensions and cultural dimensions.

2.11 Service Quality and Demographics

Demographic information allows researchers to obtain characteristics of their sample therefore making the classification of the data more meaningful (Elanain, 2003).

Demographic information such as age, gender and education level need to be examined when measuring service quality in retailing; in order to discover the relationship between demographic information and dimensions (Siu & Cheung, 2001). According to Ganesan-Lim, Russell-Bennett & Dagger (2008) it is important to understand the relationship between the customer's perception of service quality and demographic information such as age, gender and income level. This information is useful for ensuring there are suitable products available for the target market. Ganesan-Lim, Russell-Bennett & Dagger (2008) hypothesised that service quality dimensions are different depending on the age, gender and income level of customers; however only age was found to have a relationship with service quality dimensions.

Research suggests that demographics do have an effect on some service quality dimensions such as the reliability dimension (Paulins, 2005). According to Meng *et al* (2009) demographic information shows that customers with different demographic characteristics shop at different stores which further indicates that they have different perceptions of service quality. The demographic information is discussed below:

- There is little attention given to gender based research concerned with perceived service quality (Snipes, Thomson & Oswald, 2006). Gender is important in the Arab world, for instance females prefer to go to banks that have dedicated female branches (Eagle, 2009). Other research supports the need to have banks that are in line with the social and religion values of the customer (Jabnoun & Khalifa, 2005). Women-only branches are preferred because they are in line with social and religious values for some customers. In a study by Ganesan-Lim, Russell-Bennet and Dagger (2008) they found no differences in the perception of service quality based on gender. However, there were gender differences in the physical appearance and personal interaction dimension in a retail study in Hong Kong (Siu & Cheung, 2001). Other studies found that there are differences in shopping behaviour when it involves gender (Foucault & Scheufele, 2002).
- Retailers must consider age differences when studying consumption behaviour because there are differences in product choices depending on the age of the consumer (Rocha, Hammond & Hawkins, 2005). Age is a crucial factor which retail organizations. This is even more evident when the product range is associated with the age of the consumer (Varley & Rafiq, 2004). Usually people in the same age group display similar shopping behaviour and this information is important to retailers to understand more about their market (Ogden & Ogden, 2005). Furthermore, one of the problems facing retailers these days is coping with an aging population which means retailers must adapt to the changes in the age of their consumers (Varley & Rafiq, 2004). In a retailing study by Straughan & Albers-Miller (2001) no relationship between age and domestic store loyalty was found, which suggests that loyalty strategies do not need to be altered based on age differences. A different study found that age has a big influence on the perception of service quality (Ganesan-Lim, Russell-Bennett & Dagger, 2008; Kumar & Lim, 2008). There were also age differences in some of the retail dimension in study in Hong Kong (Siu & Cheung, 2001). According to Homburg & Giering (2001) there is a relationship between age and service quality dimensions. Other studies found

that there are differences in shopping behaviour when it involves age (Foucault & Scheufele, 2002).

- According to Ogden & Ogden (2005) the most important demographic information is 'marital status' because it shows if customers are buying for themselves, for a spouse, or a family with children.
- Knowing customers' income is another important factor that needs to be considered because customers that have different levels of income might prefer to buy different products or services (Ogden & Ogden, 2005). Customers with high income might favour retailers with high levels of service quality while customers with low incomes might be more tolerant to lower levels of service quality (Sum & Hui, 2009). Also, there were income level differences in the physical appearance and promises dimension in a retail study in Hong Kong (Siu & Cheung, 2001). A study by Kim & Jin (2002), looked at the number of visits the customers made to their preferred discount shop in Korea and USA, but there were no further analyses made to find any correlations between the number of visits and the different dimensions. Income has a relationship with purchasing decisions, thus high income customers gather information prior to buying a product and this may have an influence on satisfaction (Homburg & Giering, 2001). According to Meng *et al.* (2009) consumers shop at different stores based on their income level which indicates that there might be differences in the perception of service quality based on income level.
- Education level is an important demographic information because as customers become more educated they demand different products and different levels of service (Kent & Omar, 2003). Kotler & Armstrong (2010) suggest there has been an increase in educated people in the United States and this leads to an increase in the demand for quality products.

From the above discussion it is clear that gender, age, marital status, income and education level could have an effect on service quality dimensions. Various studies found that there are differences in shopping behaviour when it involves age and gender; however education level and income are more important indicators of shopping behaviour (Foucault & Scheufele, 2002). A study on Islamic banks in the UAE found that there are differences in the perception of service quality based on age, education level and the number of years the customer has been dealing with the bank (Al-Tamimi & Al-Amiri, 2003).

2.12 Service Quality and Satisfaction

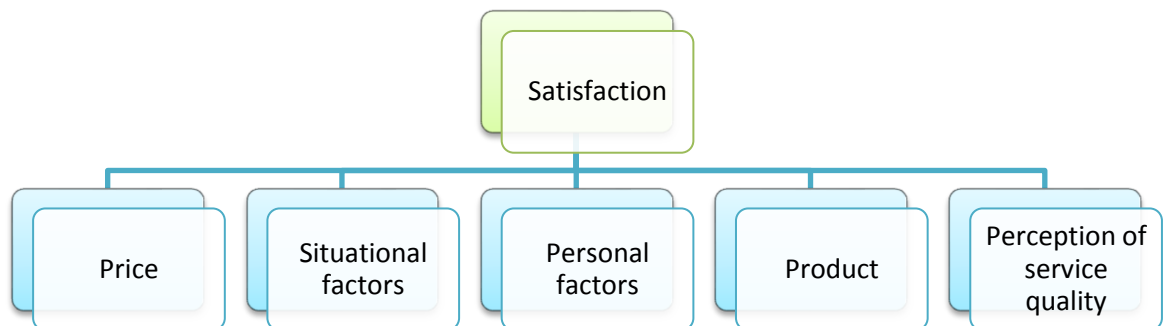
According to Nadiri & Hussain (2005, p.471) “Customer satisfaction increases profitability, market share, and return on investment”. Many recent studies have linked service quality with customer satisfaction (Curry & Sinclair, 2002; van der Wal, Pampallis & Bond, 2002; Nadiri & Hussain, 2005); if services rendered meets the customer’s expectations, then this leads to customer satisfaction and the opposite leads to customer dissatisfaction (Curry & Sinclair, 2002). The most important aspect of customer satisfaction is the fact that it increases customer loyalty and profit (Zeithaml, Bitner & Gremler, 2009), it also increases repeated buying behaviour and customer retention which is vital for the company’s financial status (Wicks & Roethlein, 2009). Wicks & Roethlein (2009) claim satisfaction is important because it is an antecedent to loyalty and loyalty is an antecedent to customer retention which is important for the financial success of the company. Other researchers such as Martin *et al* (2008) view customer satisfaction as being influenced by the customer's emotions before, during and after the service is rendered. Interaction with the service provider or the emotional bonding is more important in predicting repurchasing intention than the cognitive part of satisfaction. Moreover, emotion is very important during the interaction between the customer and the service provider, and the best predictor of customer loyalty is the “customers’ feeling of enjoyment” (Wong, 2004, p.371). It is acknowledged that customers of retail shops take pleasure in shopping with family and friends and looking for bargains prices which makes shopping an enjoyable experience and makes the shopping process more than just purchasing the required products (Rintamaki, Kuusela & Mitronen, 2007). Therefore, the physical environment and the personal interaction become key factors in creating customers emotional value.

According to Levy & Weitz (2009) satisfaction is a process of evaluating a product or service after consumption to discover whether customer’s expectations have been met or even exceeded. When the customer’s expectations are exceeded, the customer is highly satisfied, however, if the customer’s expectations are not met, then the customer will feel dissatisfied with the service (Kotler & Armstrong, 2010). Satisfaction is “an emotional state of mind that reflects the benefits or outcome of an experience along with other influences” (Howat, Crilley & McGrath, 2008, p141) and usually overall satisfaction comes after the service has been rendered. According to Vesel & Zabkar (2009, p.2) satisfaction “is a feeling or attitude a person has about a product or service after purchasing

or consuming it.” Cumulative satisfaction or general levels of satisfaction with a retailer is needed in order for satisfaction to lead to loyalty (Vesel & Zabkar, 2009). Olsen (2007) observed that satisfaction is viewed by researchers as cumulative satisfaction which is the overall experience a customer has with a service provider to date. If customers are not happy or satisfied with the services, they might seek other retailers or choose different brands (Levy & Weitz, 2009).

Research shows that even though satisfaction and service quality are close in meaning there is a difference between them; satisfaction is a combination of many elements, which makes it a more general concept, while service quality is focused on the dimensions of service quality (Wilson *et al.*, 2008). Satisfaction is a combination of the following elements; perception of service quality, price, product quality, personal factors and situational (Zeithaml, Bitner & Gremler, 2009); this is illustrated in **Figure 2.8** below.

Figure 2.8: Satisfaction components



Source: Adapted from Zeithaml, Bitner and Gremler (2009)

To clarify **Figure 2.8**, Zeithaml, Bitner and Gremler (2009) give an example of a health club; when evaluating service quality the customer checks if the equipment is operational, the interaction with the club employees, the competence of the trainers and the physical look of the club. Therefore satisfaction includes the perception of service quality, perception of product quality, price of joining the club, personal factors which might include the general feeling about the club and situational factors which could be the distance from home (Zeithaml, Bitner & Gremler, 2009).

Hoyle (2007) pointed out how customers will be satisfied with a product or service if their needs, requirements and expectations are fulfilled. Firstly, the need for a service or product includes fulfilling the reason the product or service were bought or obtained. Secondly, requirements might include needs but come after the service has been received or the product has been purchased. Finally, expectations include needs and requirements but also include things that have not been asked for but are expected with the service or product (Hoyle, 2007). Meeting the customer's needs by offering different products and services leads to customer satisfaction, which leads to an increase in loyalty (Shankar, Amy & Rangaswamy, 2003). According to Kent & Omar (2003) satisfying the customer is important because retail sales derive from both repeat customers and new customers. Satisfied customers stay loyal to retailers for a longer period of time and they tend to purchase more (Kent & Omar, 2003).

2.13 Service Quality and Loyalty

As mentioned earlier, service quality is part of satisfaction which means having a positive service experience will lead to satisfaction. Satisfaction leads to loyalty (Wicks & Roethlein, 2009), which implies that an increase in satisfaction increases loyalty; and an increase in loyalty leads to an increase in the amount of repeat purchases (Choi & Chu, 2001) and a decrease in customers switching to other stores (Wallace, Giese & Johnson, 2004). Ladhari (2009b) recognised that service quality impacts on behavioural intentions in a direct way as well as an indirect way through emotional satisfaction. Other studies by Cronin, Brady & Hult (2000), Brady *et al* (2005) and Bei & Chiaco (2006) support both the direct and indirect relationship between service quality and loyalty. The indirect relationship between service quality and loyalty could be through satisfaction; Cronin, Brady & Hult (2000) suggest value, quality and satisfaction have a direct relationship on loyalty. Molina *et al.* (2009) proposed that service quality has the biggest impact on loyalty; this does not negate the fact that other factors influence loyalty. According to Al-Wugayan, Pleshko & Baqer (2008) a growing number of studies suggest that satisfaction is not a predictor of loyalty; a customer could be satisfied with a service but not loyal.

Therefore, loyalty is essential for the organisation because it is cheaper to retain its old customers than to find new customers (Davis-Sramek *et al.*, 2009; Yuksel, Yuksel & Bilim, 2010), in addition to this customer retention is linked to the company's profit (Davis-Sramek *et al.*, 2009). Jamal & Anastasiadou (2009) argue that many researchers have shown that there is a link between customer satisfaction and loyalty. The effect of

satisfaction on loyalty depends on the industry, but it is generally agreed that satisfaction is the main drive behind loyalty (Olsen, 2007). According to Akbaba (2006) service quality is an antecedent of customer loyalty which leads to new customers, increases the company's performance which reduces costs and raises the organisation's positive image. Other researchers have reported that an increase in satisfaction leads to the possibility of repeat purchases and the willingness to recommend the shop to other customers (Yuksel, Yuksel & Bilim, 2010).

Loyalty is a commitment that a customer is prepared to make to strengthen a relationship (Reichheld, 2003) with a retailer and a brand (Wallace, Giese & Johnson, 2004). Levy & Weitz (2009) agree that customer loyalty means dedication from the customer to buy products or services from the same retailer. Customer retail loyalty is the "attitudinal and behavioural preference for the retailer when compared with available competitive alternatives" (Wallace, Giese & Johnson, 2004, p.251). Attitudinal loyalty is the bond the customer has with the retailer or brand and the preference for that certain brand while behavioral loyalty is purchase and repeated behavior (Terblanche & Boshoff, 2010).

Terblanche & Boshoff (2006) suggest that customers are unlikely to have absolute loyalty to one retailer and the best that retailers can do is to increase the level of customer loyalty. Brand loyalty is the preference of a particular brand over another brand whereas retail loyalty is loyalty to a particular store regardless of the brands they carry (Wallace, Giese & Johnson, 2004). There has been more research conducted into brand loyalty than there has into retail loyalty (Terblanche & Boshoff, 2006). Baumann *et al.* (2007) argue that loyalty is measured by the willingness to recommend a bank, short term and long term intentions to stay with the same company. Repeat purchases are not the only way to measure loyalty as this might be due to other factors such as convenience of location or ease of access so a better measure of loyalty is the willingness of the customer to recommend the store to someone else (Reichheld, 2003). The willingness to recommend the shop to other people is part of the attitudinal loyalty (Terblanche & Boshoff, 2006).

Fullerton (2005) suggested that customer commitment has an impact on the relationship between service quality and loyalty. The concept of customer commitment means the attachment the customer has to the service provider and is divided into affective commitment and continuance/calculative commitment (Fullerton, 2005; Gustafsson, Johnson & Roos, 2005). Affective commitment is the relationship with the service provider based on the customer positive experience of the service provider, whereas continuance commitment is a relationship with the service provider because the customer

might not have other alternatives or be at an economic disadvantage if he or she switches from the current service provider (Fullerton, 2005; Johnson, Sivadas & Garbarino, 2008). According to Davis-Sramek *et al.* (2009) affective commitment is directly related to loyalty whereas continuance commitment is not. The affective commitment becomes more important as customer's relationship with the service provider becomes stronger and the confidence with the service provider increases (Johnson, Sivadas & Garbarino, 2008). Furthermore, Gustafsson, Johnson & Roos (2005) suggest that affective commitment is the strength of the relationship which continues into the future, whereas satisfaction is the strength of relationship which is backward looking.

2.14 Frequency of Visits and Service Quality

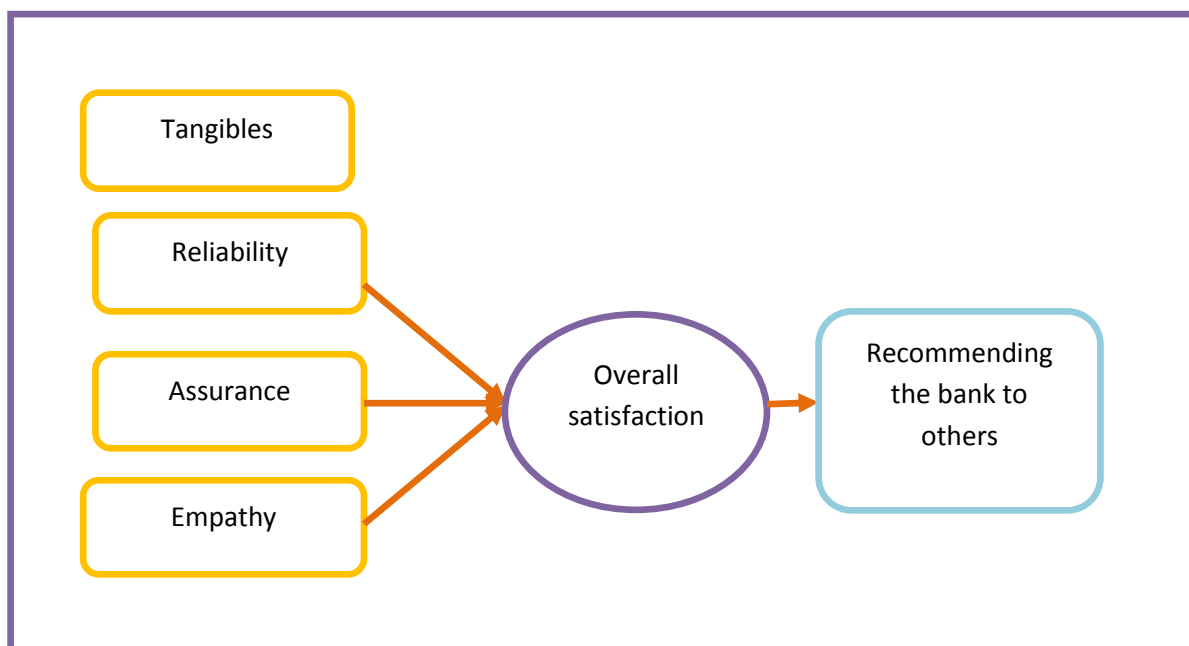
Repeat purchases alone is not a measure of loyalty since purchases related to promotions or habits are a false measure of loyalty (Johnson, Sivadas & Garbarino, 2008); however, frequency of visits could be a predictor of desires, intentions and behaviours (Perugini & Bagozzi, 2001). Purchase frequency, purchase possibility, commitment and awareness have been suggested as ways to measure loyalty (Al-Wugayan, Pleshko & Baqer, 2008). According to Raajpoot (2004) the more frequent the visits of the customers to the service provider the more the customer places importance on the service quality dimensions. Bolton (1998) suggests that the longer the customer has experience with the service provider, the higher the expectations become which makes satisfying the customers more difficult. According to Shankar, Amy & Rangaswamy (2003) there are opinions that suggest a positive or negative relationship between frequency of visits and satisfaction. The argument that suggests a positive relationship between frequency of visits and satisfaction is that the more the customer visits the service provider the more they are satisfied with the service. Whereas the argument that suggests a negative relationship between frequency of visits and satisfaction is that the more the customer visits the service provider the higher the customer's expectations become (Shankar, Amy & Rangaswamy, 2003). Johnson, Sivadas & Garbarino (2008) concluded that affective commitment has a positive relationship with frequency of visits and satisfaction.

Zhou (2004) results support the fact that measuring service quality using a dimension specific SERVPERF is more suitable than other scales in international studies. The relationship between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits has been previously researched in various studies. For example, a study of bank customers in Greece measured the effect of service quality

dimensions on satisfaction and loyalty (Jamal & Anastasiadou, 2009) and another similar study in Turkish banks tested the relationship between service quality dimensions, satisfaction and purchase intentions (Karatepe, Yavas & Babakus, 2005). A further example was measuring service quality in Turkish hotels; the study tested the relationship between overall service quality and the service quality dimensions (Akbaba, 2006). In the UAE Al Tamimi & Al Amiri (2003) tested the relationship between the overall service quality and the service quality dimensions. They also tested the level of service quality, customers' demographics and the number of years the customers had been using the bank. In this study the researcher will follow the recommendations of Ogba & Tan (2009) and Bowen & Chen (2001) and will measure loyalty based on repeat purchase (frequency of visits) and customer recommendations. However, the researcher will measure frequency of visits and customer recommendations separately and will not use an aggregate measure of the two items.

Arasli, Mehtap-Smadi & Katircioglu (2005) found a positive relationship between four service quality dimensions in Greek banks and overall satisfaction and subsequently, a link between satisfaction and loyalty. **Figure 2.9** below summarises the relationship between service quality dimensions, overall satisfaction and loyalty.

Figure 2.9: The relationship between service quality dimensions, satisfaction and recommending the bank

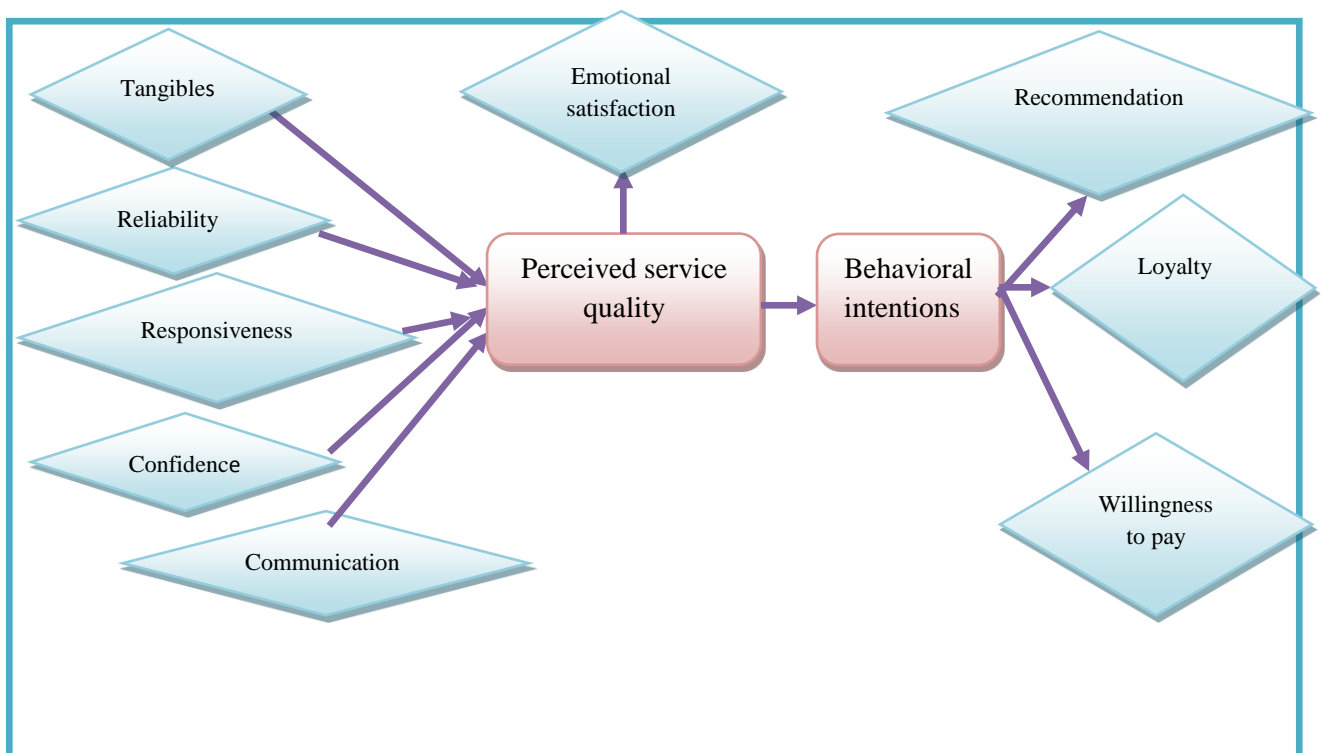


Source: Arasli, Mehtap-Smadi & Katircioglu (2005, p.51)

Ladhari (2009b) found a direct relationship between perceived service quality and behavioural intention and a direct relationship between satisfaction and behavioural intention. Furthermore, Ladhari (2009b) suggests that behavioural intention could be viewed as a multidimensional construct that consists of recommendation, loyalty and willingness to pay more. According to Ladhari (2009b) recommendation means that customers talk positively about the service provider, loyalty means repeat purchase and willingness to pay more means that the customer is willing to pay more money for service provided by the service provider. The reason the customer might be willing to pay more money than the competitors' charges is due to benefits the customer receives from their service provider.

The relationship between service quality, satisfaction and behavioural intentions are illustrated in **figure 2.10** below.

Figure 2.10: The relationship between service quality dimension, perceived service quality, emotional satisfaction and behavioural intentions



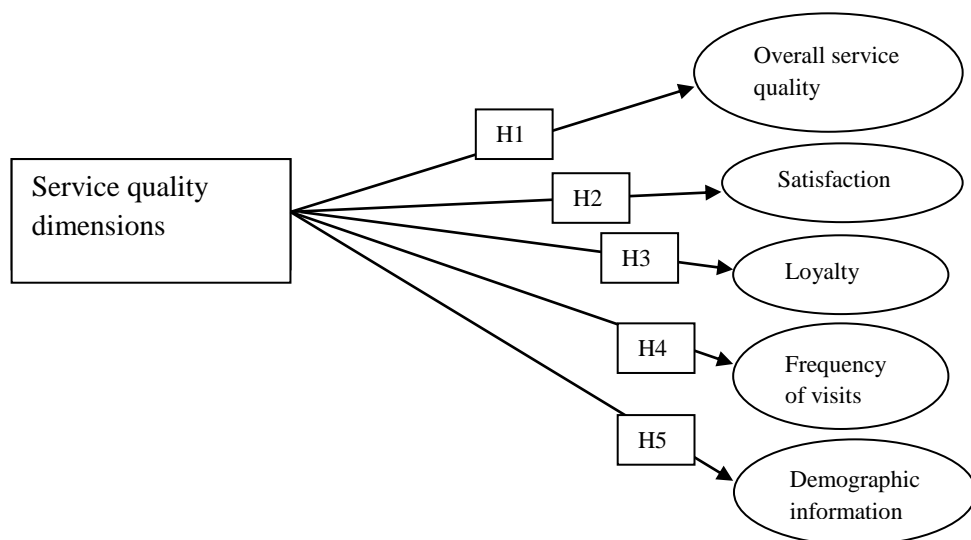
Source: Ladhari (2009b, p.321)

2. 15 Hypotheses Development

Based on the extensive literature review this study suggests modifying a scale to measure retail service quality in a college shop. After the scale has been modified then the association between the service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits are investigated. Additionally, the differences in service quality dimensions by demographic information are investigated.

According to Zhou (2004) measuring service quality using a dimension specific SERVPERF is more suitable in international studies. The association between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits has been previously researched in various studies. The conceptual model in this research suggests that service quality dimensions will have a positive association with overall service quality, satisfaction and loyalty. Also, service quality dimensions will be positively correlated with frequency of visits. Finally, it is expected that there will be differences in service quality dimensions by demographic information. To this extent, five hypotheses were developed and are shown in figure 2.11 below:

Figure 2.11: Research hypotheses



2.15.1 Overall Service Quality

A high level of overall service quality increases customer satisfaction and impacts directly and indirectly on behavioural intentions (Ladhari, 2009b). Many researchers measured overall service quality when using SERVQUAL or SERVPERF. For example Akbaba (2006) measured service quality in Turkish hotels; the study tested the relationship between overall service quality and the service quality dimensions. Al Tamimi & Al Amiri (2003) tested the relationship between overall service quality and the service quality dimensions in the UAE. Therefore, the following hypothesis and sub hypothesis are suggested.

Hypothesis 1

The modified service quality dimensions have a positive association with overall service quality.

Hypothesis 1-1: The interaction quality dimension has a positive association with overall service quality

Hypothesis 1-2: The physical aspects dimension has a positive association with overall service quality

Hypothesis 1-3: The caring and commitment dimension has a positive association with overall service quality

Hypothesis 1-4: The policy dimension has a positive association with overall service quality

2.15.2 Service Quality and Satisfaction

The positive relationship between service quality and satisfaction has been confirmed in many cultures and it explains part of the variance in customer loyalty (Lai, Griffin, & Babin, 2009). As argued in section 2.12, many researchers have investigated the relationship between service quality and satisfaction. For example, Nadiri & Hussain (2005) added one item to measure overall satisfaction when they measured perception of service quality in a Cyprus hotel. Another study by Gomex, McLaughlin & Wittink (2004)

used one question to measure overall customer satisfaction. Other studies that used one question to measure satisfaction are (Diaz-Martiz *et al.*, 2000; Choi & Chu, 2001; Drolet & Morrison, 2001; Voss *et al.*, 2004; Baumann *et al.*, 2007; Howat, Crilley & McGrath, 2008). Based on the above discussion the following hypothesis and sub hypothesis are proposed.

Hypothesis 2

The modified service quality dimensions have a positive association with overall satisfaction.

Hypothesis 2-1: The interaction quality dimension has a positive association with overall satisfaction

Hypothesis 2-2: The physical aspects dimension has a positive association with overall satisfaction

Hypothesis 2-3: The caring and commitment dimension has a positive association with overall satisfaction

Hypothesis 2-4: The policy dimension has a positive association with overall satisfaction

2.15.3 Service Quality and Loyalty

According to Lai, Griffin & Babin (2009) loyalty is one of the main determinants of long term financial growth in an organization. Section 2.13 established that several researchers measured loyalty and found a link between satisfaction and loyalty; also, many researchers used one item to measure loyalty. Reichheld (2003) recommends one item to measure loyalty by using the following item; “How likely is it that you would recommend (company X) to a friend or colleague?” According to Reichheld (2003) this question is the most effective question in measuring loyalty, and is based on a survey involving 4,000 consumers across a variety of industries. Based on the above discussion the following hypothesis and sub hypothesis are suggested.

Hypothesis 3

The modified service quality dimensions have a positive association with loyalty to Al Waha.

Hypothesis 3-1: The interaction quality dimension has a positive association with loyalty to Al Waha

Hypothesis 3-2: The physical aspect dimension has a positive association with loyalty to Al Waha

Hypothesis 3-3: The caring and commitment dimension has a positive association with loyalty to Al Waha

Hypothesis 3-4: The policy dimension has a positive association with loyalty to Al Waha

2.15.4 Frequency of Visits and Service Quality

According to Wicks & Roethlein (2009) there is a positive relationship between satisfaction and repeat purchases. Additionally, Howat, Crilley & McGrath (2008) argue that behavioural loyalty includes repeat purchases or frequency of visits. As discussed in section 2.14 there are many studies that measured frequency of visits. Akbaba (2006) used frequency of visits in his study when he measured service quality at a Turkish hotel. Other studies have used frequency of visits including a study by Parasuraman, Zeithaml & Malhotra (2005) that measured service quality in the electronics industry. Johnson, Sivadas & Garbarino (2008) found affective commitment is positively related to frequency and duration of customer visits. Based on the above discussion the following hypothesis and sub hypothesis are suggested.

Hypothesis 4

The modified service quality dimensions are positively correlated with frequency of visits to Al Waha.

Hypothesis 4-1: The interaction quality dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-2: The physical aspect dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-3: The caring and commitment dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-4: The policy dimension is positively correlated with frequency of visits to Al Waha.

2.15.5 Service Quality and Demographics

There is evidence that demographics have an effect on some of the service quality dimensions (Paulins, 2005). Meng *et al.* (2009) argue that customers having different demographic information shop at different stores which suggests there may be differences in the perception of service quality. Many studies, including those carried out by Siu & Cheung (2001) and Al-Tamimi & Al-Amiri, (2003), evaluated different demographic information when measuring service quality. Based on the discussion in section 2.11 and the above discussion the following hypothesis and sub hypothesis have been formulated.

Hypothesis 5

There is a significant difference in Al Waha service quality scale dimensions by demographic information.

Hypothesis 5-1: There is a significant difference in Al Waha service quality scale dimensions by the customers' age groups.

Hypothesis 5-2: There is a significant difference in Al Waha service quality scale dimensions by customers' gender.

Hypothesis 5-3: There is a significant difference in Al Waha service quality scale dimensions by customers' marital status.

Hypothesis 5-4: There is a significant difference in Al Waha service quality scale dimensions by customers' educational level.

Hypothesis 5-5: There is a significant difference in Al Waha service quality scale dimensions by customers' family income.

2.15 Conclusion

The measurement of service quality has become the main subject in service marketing literature because delivering high levels of service quality to consumers has a link to the company's performance (Akinci, Atilgan-Inan & Aksoy, 2010). Service quality is important because it reduces cost, increases customer satisfaction which in turn leads to customer loyalty and makes the company more competitive. Service quality is defined as the overall judgment of a product or service (Rust & Oliver, 1994) or the difference between customers' perception and expectations of services (Parasuraman, Zeithaml & Berry, 1988). The conceptualization and measurement of service quality is difficult due to the nature, elusive and abstract concept and characteristics of services which are intangibility, inseparability, heterogeneity and perishability.

It is generally accepted that the service quality literature depends on the views of Nordic school or the North American school for measuring service quality. Both schools depend on the disconfirmation paradigm in measuring service quality (Akinci, Atilgan-Inan & Aksoy, 2010) which is the difference between the expected service and the perceived or experienced service. The difference between the schools is in number of dimensions; the Nordic school proposes two or three dimensions (Chowdhary & Prakash, 2007) while the North American school proposes five dimensions. The North American school which is more widely used proposes five gaps which, when closed, lead to improved service quality. The consumer gap is the most important gap and it is measured using the 22 item SERVQUAL scale. SERVQUAL measures service quality across five dimensions: tangibility, reliability, responsiveness, assurance and empathy. Brady & Cronin (2001) integrated the Nordic model and the North American model into a new hierarchical model by proposing three dimensions and nine sub-dimensions. It is generally accepted that service quality models conceptualize service quality as a multidimensional construct with a disagreement on the number of dimensions (Akinci, Atilgan-Inan & Aksoy, 2010).

The SERVQUAL scale has been challenged on a number of issues which are summarized into using the gap model, the reliability, validity and the number of dimensions the scale produces. This led many researchers to use the SERVPERF as an alternative to SERVQUAL which overcame some of the problems associated with SERVQUAL such as the difficulty of administering the questionnaire twice and low reliability associated with using the gap scores (Lee, 2007). SERVPERF is different than the SERVQUAL in the

number of times service quality is measured; the SERVQUAL measures service quality twice and the SERVPERF measures it once.

Retail service quality was developed for shops that offer a mix of products and services because research suggests that customer might use different criteria for evaluating retail shops. The distinction between physical goods and services is made based on the four service characteristics which are intangibility, heterogeneity, inseparability and perishability (Winsor, Sheth & Manolis, 2004). Whilst the SERVQUAL is a very popular scale for measuring service quality; many studies found the need for a more specific scale. Therefore, the RSQS scale was developed as a way for measuring retail service quality; evidence suggests the superiority of the RSQS scale in an environment that has a mix of services and products. The RSQS scale consists of 28 items across five dimensions: physical aspects, reliability, personal interaction, problem solving and policy. Further evidence suggests the need to develop an even more specific scale to measure service quality that is more context and industry specific. Carrillat, Jaramillo & Mulki (2007) found in a sample of service quality studies done in non-English countries that all of the studies in the sample used a modified version of SERVQUAL.

There is evidence indicating that culture has to be considered when modifying a scale because service quality dimensions could be viewed differently in different cultures. Furthermore, there is evidence that there is a relationship between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographic information; therefore it is important to investigate the relationship. Studies have found that satisfaction is important because it leads to loyalty which leads to customer retention and this has a positive effect on the financial success of the organization (Wicks & Roethlein, 2009). Frequency of visits is important because they could be a predictor of intentions and behaviors (Perugini & Bagozzi, 2001) and Raajpoot (2004) found that the more customers visit the service provider the more importance they place on service quality dimensions. Some research suggests a relationship between consumers' service quality perception and demographic information such as age, gender and income level.

As discussed earlier the concept of service quality is under researched in the UAE and the Arab World. The few studies that measured service quality in the UAE have generally measured service quality in banks. Based on the above discussion there is a need for more conceptual and empirical evidence for creating a context specific scale when measuring retail service quality in the Middle East. To address this gap, this study customizes a scale

for measuring retail service quality that is specific to the region and then investigates the association with overall service quality, satisfaction, loyalty and frequency of visits.

Overall, few studies have measured service quality at the dimension level and its association with satisfaction and loyalty. Consequently, the research addresses the gap in the literature for measuring retail service quality in an Arab female college shop. The concept of a college shop that is managed by young Arab females is unique to the region.

There are a few studies that measure service quality in the Arab world and none that measure retail service quality which makes benchmarking against other studies in the region difficult. This research closes the gap by focusing on measuring retail service quality in a college shop; using a modified RSQS scale that is more context specific to a retail shop in Dubai Women's College. It is expected that retail service quality dimensions will be somewhat different from the original retail service scale (RSQS) as suggested by research done in non-Western countries. Scales that are modified present different dimensions and this is what makes these scales unique for the context under investigation. Some relationship differences are expected between the new dimensions and overall service quality, satisfaction, loyalty and frequency of visits, additionally, differences are also expected between service quality dimensions across demographics.

Chapter 3

Methodology

Chapter 3: Methodology

3. 0 Introduction

In this chapter the philosophical stance of the researcher is explored which will clarify the reasons for the choice of methodology used in this research. Therefore, the main purpose of this chapter is to present the research methodology and methods used in this study in order to answer the research questions and to achieve the research objectives. To answer the research questions a research instrument was modified to measure service quality at a college shop and this modified research instrument was used for testing different associations. The process used to modify the research instrument and the techniques used to collect and analyse the data will be discussed in detail. The importance of the study comes from the fact that a scale has been customised to measure perceived service quality at a college retail shop.

The chapter begins with the elements of the research process which include the epistemology, theoretical perspective, the methodology and methods used in the research. Subsequently, the chapter explains the methods used for data collection and analysis. The steps for the scale modification which includes in-depth interviews and phase one of the study followed by the reasons for modifying the scale are then explained in detail. The first step for the scale modification was carrying out interviews; these were used to produce a modified RSQS scale which was then used in phase one of the study. Phase one of the study was conducted and after factor analysis the reduced version of the modified RSQS was used for data collection in the main study. It should be emphasised that the main method of data collection was by questionnaire. This is followed by a discussion on the validity and reliability of the scale where a scale's validity is especially important when a scale is being modified. Finally, the ethical issues are presented and the limitations of the study are discussed.

3.1 Elements of the research process

Research design is the research process that involves the overall assumptions of the research to the method of data collection and analysis (Creswell, 2009). The choice of research design depends on the objectives of the research in order to be able to answer the research questions (Crotty, 1998). Therefore, the researcher describes the research elements in general before describing his own philosophical stance. The four elements of the research process, epistemology, theoretical perspective, methodology and methods are presented in **Table 3.1**.

Table 3.1: Elements of the research process

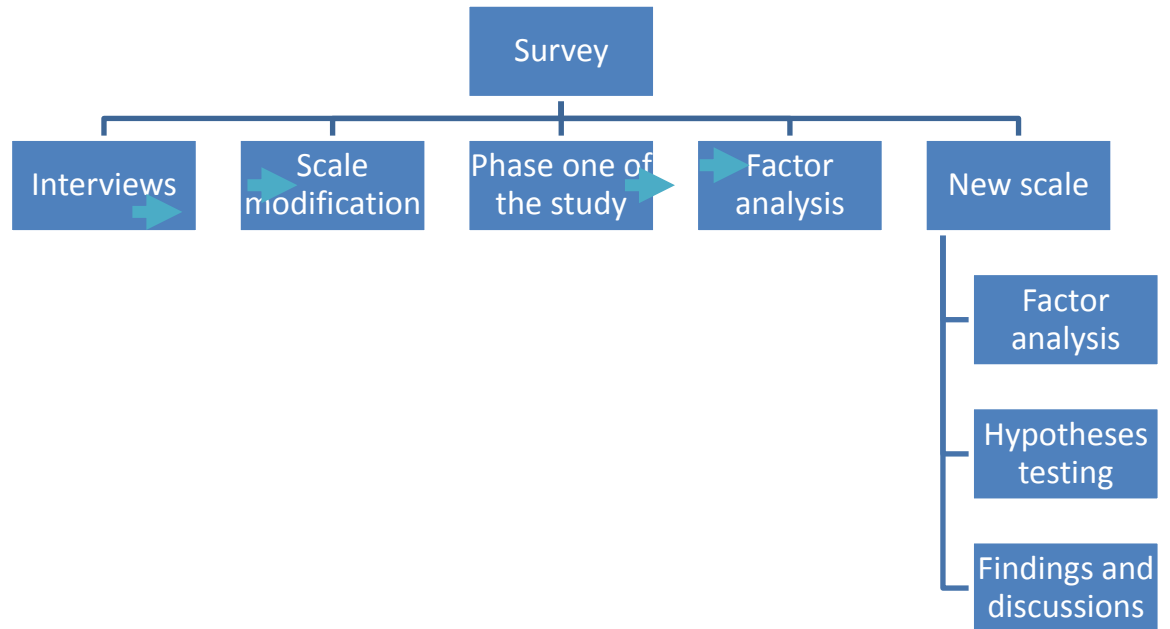
Epistemology	The assumption of knowledge that is part of your methodology (Crotty, 1998; Creswell, 2009). Examples are objectivism and subjectivism
Theoretical perspective	The researcher's philosophical stance that is the basis for his/her methodology (Crotty, 1998; Creswell, 2009). Examples are positivism, interpretivism and postmodernism
Methodology	The reason for choosing a method and how the method is used (Crotty, 1998; Collis & Hussey, 2003). Examples are action research, phenomenological research and survey
Methods	Tools and techniques used to gather and analyse data (Crotty, 1998; Saunders, Lewis & Thornhill, 2009). Examples are observations, interviews and questionnaires.

3.1.1 Overview of the Researcher's research process

After describing the four elements of the research process the researcher gives an overview of his own research process. The first part (figure 3.1) shows that the researcher of this study follows an objective epistemology, a positivist approach and used surveys for data collection. The second part (figure 3.2) shows a more detailed description of the steps that led to the new modified scale and finally the discussions and findings.

Figure 3.1: Elements of the research process for this research



Figure 3.2: New scale development and findings

3.2 Epistemology and theoretical perspective

Epistemology provides the researcher with a philosophical stance upon which the researcher builds the methodology that is used in his/her research (Crotty, 1998; Creswell, 2009). Therefore, it is important that the researcher explains the philosophical position that is being adopted in the research (Crotty, 1998). Another way of looking at epistemology is the way the researcher understands the research. This could be fundamentally different from one researcher to another because knowledge is attained in different ways and we are created in a way that makes it difficult for us to be objective (Blaikie, 2007). The researcher's beliefs and understanding of the world influences the research design (Gill & Johnson, 2005). Moreover, epistemology concludes that there is a

degree of certain knowledge that can be uncovered (Hanson & Grimmer, 2007) or as described by Tashakkori & Teddlie (1998) the knower and the known are independent.

Epistemology can be viewed as a continuum with objectivism at one end and subjectivism at the other (Johnson & Duberley, 2000). Objectivism assumes that the researcher and the area being researched are independent and this means that the researcher has the capability to study the area of research independently without being influenced by his own views (Johnson & Duberley, 2000). Researchers that follow an objective epistemology are mainly concerned with a positivist approach which was historically used for natural sciences such as biology and physics and later adopted by social science (Crotty, 1998). Subjectivism assumes that the researcher and the area being researched are not independent and that the researcher might be involved in a participative enquiry (Collis & Hussey, 2003). Therefore, a subjectivist epistemology is mainly concerned with an interpretivist approach which argues that it is impossible to separate the researcher from the area being researched (Collis & Hussey, 2003).

There are two major philosophies, the positivist and the interpretivist (Collis & Hussey, 2003) with interpretivism seen as a direct contrast to positivism (Bryman & Bell, 2007). The positivist approach has an objective epistemology that usually follows deductive logic and uses a quantitative method reliant on hypothesis testing for generalisations from the sample of the population. The samples tend to be large to allow for generalisations and usually surveys are used that produce findings with high reliability and low validity (Collis & Hussey, 2003). It is believed that Francis Bacon the sixteenth century philosopher is the founder of positivism (Crotty, 1998), however many attribute positivism to Auguste Comte the father of sociology which is debatable (Crotty, 1998; Blaikie, 2007). Positivism is also associated with empirical science and assumes that scientific knowledge is objective, accurate and certain (Crotty, 1998). The basis of explanation in the positivist approach is that social science can be conducted in a scientific way just like natural sciences (Collis & Hussey, 2003). Therefore, positivism or, as it is sometimes referred to, the scientific method (Creswell, 2007), (Collis & Hussey, 2003), has always been believed to be based on facts or causes because it comes from facts which can be experimented or observed (Collis & Hussey, 2003). These observations, if carried out in a careful and objective way, and if the reasoning of scientific knowledge is sound, will have objective results (Chalmers, 1999). Therefore, positivism is seen to be derived from objectivism (Fay, 1996) and objectivity is the fundamental basis of social science and it provides us with knowledge about the world (May, 2001). Moreover, positivism is a progression from

observation to verification by means of experiment and assumes that everything can be reduced to smaller parts (Delanty, 1997).

Many philosophers believe that positivism is the foundation and rationale for most management research these days (Johnson & Duberley, 2000). Many social science approaches today have drawn their ideas from positivism or the contradiction to positivism despite the fact that it has been challenged (Smith, 1998; Johnson & Duberley, 2000; Gill & Johnson, 2005). For this reason, some aspects of positivism have become accepted ways of judging truth and reality and are now part of Western culture (Johnson & Duberley, 2000). Consequently, positivism has influenced many approaches that are thought to be an objective way of viewing reality, because of this wide influence, the definition of positivism has become unclear (Smith, 1998).

There are eight main features of positivism (Hussey & Hussey, 1997): First, a quantitative method is usually used, although it is possible to use qualitative methods. Second, large samples are usually used in order to generalise the findings. Third, hypotheses are tested; a hypothesis is usually tested by statistical analysis and a decision is made to reject or accept the null hypothesis. Fourth, data is specific; researchers attempt to measure the data and reach conclusions. Fifth, location; investigations of the problem are not usually conducted in the field. Sixth, reliability; concerned with the repetition of the test, if the test is repeated will the same results be obtained? Seventh, validity; do the findings represent the real situation? Eighth, generalisations are made from the samples; here confidence tests may be used to suggest that the researcher is 95% - 99% confident that the sample represents the population.

In contrast, the interpretivist approach has a subjective epistemology that usually follows inductive logic and uses qualitative methods reliant on investigating theories. The theory may be an existing one or one that the researcher creates in order to have in-depth knowledge of the main study. Reliability is low and validity is high in the findings of the interpretivist approach because in the interpretivist approach reliability is not as important as it is in the positivist approach (Collis & Hussey, 2003). In the interpretivist approach researchers are subjective in the way they look at their findings and attempt to understand and describe the way people view the world (Creswell, 2009). Moreover, the researcher in the interpretivist approach understands that his interpretation of these findings is influenced by his own culture, beliefs and experiences (Creswell, 2009).

Deductive logic places emphasis on “arguing from the general to the particular” (Plano Clark & Creswell, 2008). The researcher forms a theory based on a hypothesis allowing the researcher to deduce conclusions, which are then examined to establish whether they add to the general knowledge (Blaikie, 2007). The hypothesis that is formed must be tested empirically and the researcher must identify the method of data collection (Bryman & Bell, 2007). According to Bryman & Bell (2007) the deduction process is as follow: theory, hypothesis, data collection, findings, hypothesis confirmation or rejection and revision of theory.

On the other hand, inductive logic places emphasis on “arguing from the particular to the general” (Plano Clark & Creswell, 2008). The researcher makes observations and finds underlying themes in the data and then these findings are subjected to more testing for further clarifications of the theme (Blaikie, 2007). The inductive process is as follows: observations, findings and then theory (Bryman & Bell, 2007).

In this study the researcher follows an objective epistemology, a positivist approach and a deductive logic because using a scale to gather information from a large number of people to be analysed and then generalised to some degree requires a positivist approach. The positivist approach is the approach used by many researchers in service quality and is predominately used because of the complex nature of service quality (Schembri & Sandberg, 2002). Parasuraman, Zeithaml & Berry (1998) who originally developed the SERVQUAL scale, used a positivist approach to measure service quality. Additionally Dabholkar, Thorpe and Rentz, (1996) developed the RSQS scale using a positivist approach. Ladhari (2008) researched 30 industry specific scales and reported that all of the studies used a positivist approach.

3.3 The Research Methodology and Methods

One of the most important and equally difficult decisions to make is whether to use quantitative or qualitative research methods or a mixed method approach. The differences between the qualitative and quantitative approaches are based on the judgment of different authors because both approaches may include different methods (Hanson & Grimmer, 2007). Quantitative research is used to test an objective theory (Creswell, 2009) which usually requires the researcher to collect numerical data and analyse it statistically (Punch, 2001). Therefore, quantitative research usually involves instruments that are used for collecting data (Punch, 2001) and quantitative methods are usually concerned with making

generalisations about a population under investigation (Zikmund *et al.*, 2010). In general, there are two types of quantitative research methods (Creswell, 2007):

1. Survey: this entails the collection of data by using a questionnaire to discover the opinions of a population, based on a sample of the population (Creswell, 2009). Moreover, there are many techniques used to collect data which include interviews, telephone calls and observation (Tharenou, Donohue & Cooper, 2007). The term *observation* used here has a different meaning to the same term used in the qualitative method; it is the recording of numbers e.g. recording the number of people that cross a particular street. A more detailed discussion of *survey* is found in the survey section.
2. Experiment: a researcher assigns participants to two groups; a control group and a treatment group that is given the experimental condition. Experiments are performed to test the relationship between cause and effect. This involves a comparison of the control group to the treatment group (Tharenou, Donohue & Cooper, 2007). According to Tharenou, Donohue & Cooper (2007), experiments can be either true experiments or quasi-experimental design.

Qualitative research is normally used when the researcher wants to explore a problem and gain a deeper understanding of it. This understanding can only be accomplished by talking to people or observing them (Creswell, 2007). This is done when the researcher encourages participants to tell their stories and then looks at how these participants address the problem or issue that is being investigated (Creswell, 2007). Furthermore, some qualitative research is done before or after conducting quantitative analysis to gain a better understanding of the issues being researched. Sometimes it enhances the quantitative results which might not be sufficient to explain the issue being researched (Creswell, 2007). According to Creswell (2007), the most common qualitative methods are; narrative, phenomenology, grounded theory, ethnography and case study. These methods are discussed below (Creswell, 2007):

1. Case study: this method is used to explore a single issue or phenomenon based on one case study or many case studies and is bound by time and activity. The researcher collects data using different methods of data collection such as interviews, observations or reports. One of the major drawbacks of the case study is deciding on one case or several cases which make the analysis of the findings difficult to interpret. This adds to the difficulty of having a time and event constraint.

2. Ethnographic studies: over a period of time the researcher studies a cultural group, usually more than 20 people that share common characteristics. The researcher studies the behaviours, beliefs and languages of the group and then interprets these findings. A major drawback is the time it takes the researcher to collect the data. Moreover, it usually requires the researcher to have a good understanding in anthropology.
3. Phenomenological studies: the researcher studies the participants and has a detailed description of the things they have in common in order to understand the meaning of a “lived experience of a concept” (Creswell, 2007, p.57). One drawback of this type of study is choosing participants that have a common concept or lived experience in which the researcher will be able to find common issues.
4. Grounded theory: the researcher studies participants who have experienced a practice in order to discover a theory that explains this practice. One drawback of this method is the researcher’s involvement in the research; therefore the researcher’s involvement should be limited as much as possible.
5. Narrative research: the researcher asks the participants to tell a story and then analyses these stories. The researcher usually focuses on one or two people for the story telling and for interpreting their stories. The difficulty of this method is the vast amount of information that needs to be collected from the participants; the researcher should also have a clear understanding of the information being collected.

The mixed method approach is a combination of qualitative and quantitative methods used for the collection or analysis data (Collis & Hussey, 2003). An example of a mixed method approach could be a combination of a survey and observations. According to Creswell (2009) a strong mixed method approach includes a qualitative and quantitative research question which builds the overall design of the study. The researcher must make it clear that mixed methods are being used by clarifying the qualitative and quantitative research question (Creswell, 2009).

Based on the objectives of this study, a quantitative method has been used for the development of the retail service quality scale. In a review of 19 service quality models between the years of 1984-2003; nine studies used the quantitative methods, four used the qualitative method and two used mixed methods and four did not report any analysis (Seth,

Deshmukh & Vrat, 2005). Another study that looked at 30 different service quality scales found that the quantitative method was the main approach for data collection (Ladhari, 2008). Moreover, the most widely known quality service model, which is the SERVQUAL, used a quantitative method as the main approach for data collection and the qualitative method was used for generating items for the service quality scale (Chen *et al.*, 2007). According to Ladhari (2008) qualitative methods make it difficult to find small differences that quantitative research might be able to find. Additionally, qualitative methods usually use small samples which make the findings not generalisable to the population (McDaniel & Gates, 2006). As discussed earlier surveys, using questionnaires are the most common way to collect data in service quality studies. This is explained in detail below.

3.3.1 Survey

According to Zikmund and Babin (2010b, p.64) a survey is ‘a research technique in which a sample is interviewed in some form or the behaviour of respondents is observed and described in some way’. Generally surveys are linked to deductive logic and are a regular method of collecting data in management research by employing a questionnaire that collects data from a sample then statistically analyses the data (Saunders, Lewis & Thornhill, 2007). Surveys are usually used to collect quantifiable data from respondents to measure, examine, analyse and generalise the findings. Furthermore, it has become accepted as a scientific and accurate way of collecting data to quantify gathered information, even though some aspects of the survey might be qualitative (Zikmund, 2003). The qualitative method usually uses small samples which means the findings cannot be generalized to the population (McDaniel & Gates, 2006).

Surveys usually record the perception of respondents about opinions, attitudes or beliefs and it is a way of understanding consumer preferences (Black, 1993; Fowler, 2002). Surveys are an inexpensive and efficient way of gathering information about the population or a sample of it (Hague, 2002). This information could be collected from respondents by making telephone calls, sending the questionnaire by post, face to face or using other methods of data collection (Hague, 2002). As the main reason for having a questionnaire is to obtain information from the respondent, it should be logical and follow a certain order that allows respondents to record facts, comments or attitudes (Hague, 2002).

A popular method of collecting data for surveys is using Likert scales, these are used for measuring attitudes which require respondents to choose a statement from a number of statements that range from 'strongly agree' to 'strongly disagree' (Zikmund, 2003; Saunders, Lewis & Thornhill, 2007). The respondent usually chooses a response from a set of five statements where each response is assigned a weight which allows the researcher to perform statistical analysis (Zikmund, 2003). The choice that the respondent makes means that they agree with the statement they have chosen which allows them to express their feelings (Zikmund, 2003). Moreover, the questionnaire should be organized in a way that places similar questions in the same category to make it easier for the respondent to follow (Saunders, Lewis & Thornhill, 2007).

The researcher used a Likert scale that adopted a 5 point scale for his study, instead of a 7 point Likert scale because 5 point scales reduce the level of frustration among respondents, and increases the rate and quality of the responses (Buttle, 1996; Prayag, 2007). Likert scales are a dominant method used for measuring service quality; twenty five out of the thirty studies that developed industry specific scales, used a Likert scale to measure service quality (Ladhari, 2008). Another study that reviewed 19 service quality models found that 10 used quantitative methods which all used Likert scales (Seth, Deshmukh and Vrat, 2005). According to Caro and Garcia (2008) the number of items on the service quality scale depends on the context of the research. A Likert scale was used in this study which asked customers to best describe the way they feel about shopping at Al Waha: 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree and 5 strongly agree.

3.3.2 Pilot Study

According to Zikmund *et al.* (2010) 'a pilot study is a small scale research project that collects data from respondents similar to those that will be used in the full study'. Pilot studies are conducted to uncover any weaknesses in the design of the scale and it should follow the same method of data collection as the main study (Cooper & Schindler, 2008). The size of the sample in the pilot study could range from 25 to 100 (Cooper & Schindler, 2008). The pilot study is important because it provides confirmation that the procedures used are suitable, helps to refine the survey questions and makes sure that the survey used in the main study is appropriate (Zikmund *et al.*, 2010). Therefore, pilot studies help in refining the objectives of the study (Zikmund & Babin, 2010a). Moreover the pre-test could be repeated many times in order to refine the scale (Cooper & Schindler, 2008). The

main purpose of a pilot study is to validate the use of the scale to be used in the main study. Hence the researcher used a pilot study before conducting the main study.

3.4 Sample

A sample is taken from the target population being researched. If the sample is adequate it will have the same characteristics of the population (Zikmund, 2003) and the findings are usually used to make conclusions about the population (Field, 2009). Moreover, sampling techniques are methods that are used to select a sample from the population by reducing it to a more manageable size (Saunders, Lewis & Thornhill, 2007). According to de Leeuw, Hox and Dillman (2008), these sampling techniques are used when inferences are made about the target population.

There are two main sampling techniques (Zikmund, 2003; Saunders, Lewis & Thornhill, 2007):

1. Probability sampling which refers to the possibility that each object in the target population could be selected and usually the chance of selecting one object is equal to the chance of selecting any other object. This method is usually used with surveys and generalisations about the population are obtained from the sample. Probability sampling has four important elements. First, the sampling frame which refers to the population under investigation. For example, if a researcher is studying perceived service quality in a particular bank, all the customers of that bank are the sampling frame. Second, to decide on an appropriate sample size, the larger the sample the more accurate are the generalisations about the population. Third, high response rate is important because the higher the response rate the more representative the sample is of the population. Fourth, select the best sampling technique for the study from the following:
 - a. Simple random: Each unit in the population has the same chance of being selected. This could be done by assigning numbers to each object in the population and then drawing a number at random.
 - b. Systematic sampling: The starting point is randomly selected and then every 3rd, 4th item etc. is selected.

- c. Stratified: The population is divided into strata (groups) that have similar characteristics and then samples are drawn from each group.
 - d. Cluster: The population is divided into groups (clusters) which are similar to the stratified sampling, but in this method there are “natural” groupings of the population.
 - e. Multi stage sampling: this is also called multi stage cluster samples which are similar to the cluster sampling but in this instance the samples are taken at different stages from the different clusters.
2. Non-probability sampling refers to objects that are selected based on the judgment of the researcher and usually generalisations from this method are possible, although not by using statistical techniques. According to de Leeuw, Hox and Dillman (2008) statistical inferences are not appropriate when non-probability sampling is the technique used. The non-probability sampling also takes many forms (Zikmund, 2003):
- a. Convenience sampling (haphazard sampling): this is the selection of the units that are most convenient for the researcher but makes it difficult to discern if the chosen sample is representative of the population.
 - b. Quota sampling: the population is divided into different groups that have similar characteristics; the units are then taken from each subgroup. This is a non-random technique that is usually used for interviews.

The sampling method used by the researcher in this study was systematic sampling; the first customer was chosen randomly and after that every third customer was approached to complete the questionnaire. Probability sampling is the preferred method for survey research (Saunders, Lewis & Thornhill, 2009) and the most appropriate type of probability sampling is systematic sampling. Systematic sampling requires the researcher to select the first respondent randomly and then calculate the sampling fraction (Saunders, Lewis & Thornhill, 2007). To calculate the sampling fraction the researcher needs to know the actual sample size and the total population. The sample size is divided by the total population to get a sampling fraction; once this is done the next case is selected. To clarify, in this research the researcher required a sample size of larger than 300; the researcher decided on a sample size of 500. To calculate the sample fraction the sample size is divided by the total number of the students at the college which are 2200. The

sample fraction is $\frac{1}{4}$ which means every 4th customer will be asked to answer the questionnaire.

A similar approach was used by Dabholkar, Thorpe and Rentz (1996) who are experts in the field of retail service quality; they approached every fifth customer entering the store to complete the questionnaire. Data collection is more meaningful when the responses are taken from customers in the store after the shopping is completed (Dabholkar, Thorpe & Rentz, 1996; Boshoff & Terblanche, 1997). Random sampling was used in retail service quality studies that used the RSQs scale; examples are the study of Parikh (2006) and (Vazquez *et al.*, 2001) and (Dabholkar, Thorpe & Rentz, 1996; Boshoff & Terblanche, 1997) who used random sampling in their studies. Asking shoppers to complete a questionnaire in the shop provides them with a chance to pay attention to the dimensions while answering the questionnaire, this also eliminates problems with customers trying to recall the shopping experience (Burns & Bush, 2010).

3.4.1 Sample size

Sample size has an effect on how the sample findings accurately represent the population (Burns & Bush, 2010). The larger the sample is, the more likely that the generalisations are an accurate reflection of the population (Saunders, Lewis & Thornhill, 2009). Sample sizes depend on factors such as the time and money available to collect the data (Hair 2006); they also depend on the statistical analysis used in the study (Saunders, Lewis & Thornhill, 2009). According to Hair (2006), small or very large samples have a negative impact on the statistical tests because either the sample is either not big enough to make generalisations or too big to reach any conclusions. Tabachnick and Fidell (2007) established that a sample size of 300 is adequate for factor analysis and for regression analysis a sample size of $N \geq 50 + 8 \cdot M$ is adequate where m is the number of independent variables. In general, there has been an understanding among authors of statistical books that the larger the sample the more appropriate it is for factor analysis (Pallant, 2007). Hair (2006) suggested that a sample size larger than 100 is needed for factor analysis and as a general rule of thumb the observations should be 5 times the number of variables. The number of variables in this study before factor analysis is 40 questions which suggests that the sample size should be larger than 200. There are 4 independent variables in this study; a sample size of $50 + 8 \cdot 4 = 82$ is adequate for regression analysis. A sample size of 300

meets all the above arguments of having a proper sample size for factor analysis and regression analysis.

A total of 350 questionnaires were distributed in phase one of the study, of which 303 were completed which is more than the 300 needed for factor analysis as stated by Tabachnick and Fidell, (2007); and more than the minimum required for regression analysis. For the main study a total of 500 questionnaires were distributed of which 424 were used for the main study which exceeded the minimal requirement for factor analysis and regression analysis. The response rates were excellent for phase one of the study and the main study which indicates that customers didn't have a problem completing the questionnaires.

3.5 The research questions

The purpose of this research is to customise a scale for measuring service quality in a college retail shop in the UAE, and then testing the scale to find if it is suitable for the shop. The second objective is to test the relationship between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits. The third objective is to test the difference between the service quality dimensions by demographic characteristics. This scale measures the perceptions of service quality only, therefore the scale is administered once. Based on the literature review and to meet the objectives of this study the main research question is:

How to evaluate retail service quality in a college shop and its influence on customers?

The following supporting questions emerged to answer the overall research question.

- 1. How should service quality perception be measured at a college shop using a context-specific scale?**
- 2. Is there an association between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits?**
- 3. Is there a difference between service quality dimensions by demographic information?**

The relationship between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographic information is in line with previous research as evident in the literature review chapter. The first research question will be answered by testing the reliability and validity of the scale to determine whether it is suitable for measuring service quality at the college shop. The second and third research questions are answered by the following hypotheses:

3.5.1 The research hypotheses

The following hypotheses will answer the second and third research questions and the objectives of the research study.

Hypothesis 1

The modified service quality dimensions have a positive association with overall service quality.

Hypothesis 1-1: The interaction quality dimension has a positive association with overall service quality

Hypothesis 1-2: The physical aspects dimension has a positive association with overall service quality

Hypothesis 1-3: The caring and commitment dimension has a positive association with overall service quality

Hypothesis 1-4: The policy dimension has a positive association with overall service quality

Hypothesis 2

The modified service quality dimensions have a positive association with overall satisfaction.

Hypothesis 2-1: The interaction quality dimension has a positive association with overall satisfaction

Hypothesis 2-2: The physical aspects dimension has a positive association with overall satisfaction

Hypothesis 2-3: The caring and commitment dimension has a positive association with overall satisfaction

Hypothesis 2-4: The policy dimension has a positive association with overall satisfaction

Hypothesis 3

The modified service quality dimensions have a positive association with loyalty to Al Waha.

Hypothesis 3-1: The interaction quality dimension has a positive association with loyalty to Al Waha

Hypothesis 3-2: The physical aspect dimension has a positive association with loyalty to Al Waha

Hypothesis 3-3: The caring and commitment dimension has a positive association with loyalty to Al Waha

Hypothesis 3-4: The policy dimension has a positive association with loyalty to Al Waha

Hypothesis 4

The modified service quality dimensions are positively correlated with frequency of visits to Al Waha.

Hypothesis 4-1: The interaction quality dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-2: The physical aspect dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-3: The caring and commitment dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-4: The policy dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 5

There is a significant difference in Al Waha service quality scale dimensions by demographic information.

Hypothesis 5-1: There is a significant difference in Al Waha service quality scale dimensions by the customers' age groups.

Hypothesis 5-2: There is a significant difference in Al Waha service quality scale dimensions by customers' gender.

Hypothesis 5-3: There is a significant difference in Al Waha service quality scale dimensions by customers' marital status.

Hypothesis 5-4: There is a significant difference in Al Waha service quality scale dimensions by customers' educational level.

Hypothesis 5-5: There is a significant difference in Al Waha service quality scale dimensions by customers' family income.

To answer the first research questions, the customised scale must be appropriate for measuring service quality at the college shop. Hypotheses 1, 2, 3 and 4 will answer the second research question while hypothesis 5 will answer the third research question.

3.6 Method of data analysis

Data analysis comes after the data has been collected (Field, 2009) to make sense of the study and reach certain findings. This section will present the different techniques used for data analysis by the researcher in this study.

3.6.1 Factor analysis

One of the major uses of factor analysis is to summarise the data to be more manageable without losing any of the important information therefore making it easier to test theories (Field, 2009; Johnson and Wichern, 1998; Tabachnick and Fidell, 2007b). There are three main reasons for using factor analysis (Field, 2009): to develop a scale to measure an underlying theme such as service quality, to reduce the variables to a manageable size and to have a better understanding of the variables.

According to Cooper and Schindler (2008) factor analysis is a technique used for specific computational techniques. These factors, also called latent variables, aim to measure things that are usually hard to measure directly, such as attitudes and feelings (Field, 2009). This is a way to explain the relationships among variables by combining them into smaller factors (Coakes and Steed, 2001; Zikmund, 2003). The scales usually start with many questions, and then by using factor analysis are reduced to a smaller number (Pallant, 2007). These reduced results are then used for other analysis such as multiple regression analysis (Pallant, 2007).

There are two methods of factor analysis observed by Kinnear and Gray (2010), the exploratory factor analysis and the confirmatory factor analysis. The purpose of the exploratory factor analysis is to find the number of factors that explain the correlations; while in the confirmatory factor analysis the researcher predicts the number of factors with specific loading (Kinnear and Gray 2010). Another important point to consider when performing factor analysis is factor loadings. Factor loadings are the correlation of the variable with the factor. When the loading is clear then the interpretations of the factors become easier (Zikmund *et al.*, 2010). Some variables have a loading or correlation with more than one factor. The mathematical technique for simplifying the results of the factor analysis results is called factor rotation (Zikmund *et al.*, 2010).

The most common method of factor analysis is the principal component (Cooper & Schindler, 2008; Kinnear & Gray, 2010) and the most common method of factor rotation is the varimax rotation (Kinnear & Gray, 2010; Zikmund *et al.*, 2010). Principal component technique looks at the correlation of different variables to reveal the relationship between them, then reduces the variables by empirically summarising them or combining them into a small number of factors under common themes (Tabachnick and Fidell, 2007b). Factor rotation is used as a method to interpret the factors by showing the variables that group together (Pallant, 2007). Two tests are performed to ensure that the data is suitable for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy and the Bartlett's test of sphericity (Pallant, 2007). The KMO value is low if it is between 0.5 and 0.7 and excellent if it is above 0.90 (Field, 2009). Factors with an eigenvalue of 1 or greater are usually retained (Field, 2009).

The researcher will use exploratory factor analysis using principal component analysis with varimax rotation to reduce and to analyse the data collected from the modified RSQS scale. Factor analysis is heavily used for service quality questionnaires and, according to

Gilbert and Veloutsou (2004), this technique has been adopted by almost one sixth of the authors of journal articles over the past thirty years. Moreover, the method used by Gilbert et al.(2004) and Akbaba (2006) in their studies is the principal components and varimax procedure.

3.6.2 Correlation analysis

Correlation analysis is a measure of the size and direction of the association between variables, this differs from regression analysis which is used to predict a variable depending on another variable (Tabachnick & Fidell, 2007). It shows the strength of the association between two continuous variables (Pallant, 2007). Correlation analysis is carried out before regression analysis to rule out strong relationships between the independent variables. There should also be some correlation between the dependent variable and the independent variables (Pallant, 2007).

The correlation coefficient values range from -1 to 1; the strength of the association depends on the absolute value of the correlation coefficient and the direction of the correlation depends on the sign of the correlation (Burns & Bush, 2010). According to Burns and Bush (2010) the table below is a rule of thumb about the strength of the association.

Table 3.2: Strength of correlation coefficient

Range	Strength of association
0.81-1.00	Strong
0.61-0.80	Moderate
0.41-0.60	Weak
0.21-0.40	Very weak
0-0.20	None

3.6.3 Regression analysis

Regression analysis is used to find the relationship between one dependent variable and one or more independent variables and has become popular in many research areas (Hair *et al.*, 1998; Tabachnick & Fidell, 2007). Regression is another way to determine the association between variables; this is similar to bivariate correlation as it assumes that there is a link between the dependent and independent variable (Zikmund, 2003).

Regression analysis is called simple regression analysis when there is only one independent variable and is called multiple regression when there is more than one independent variable (Robson, Pemberton & McGrane, 2008). Multiple regression analysis is more complex than correlation and is used to find the ability of a set of independent variables in predicting the dependent variable (Pallant, 2007).

According to Zikmund, Babain & Griffin (2010) simple regression analysis and correlations are mathematically the same in many respects; however the correlation is an interdependence technique and regression is a dependence technique. The interdependence technique does not differentiate between dependent and independent variables; whereas the dependence technique distinguishes between dependent and independent variables.

The R square ranges from 0-1 and this shows how much of the dependent variable is explained by the independent variables (Burns & Bush, 2010). The higher the R square the stronger the association between the dependent variable and the independent variable (Burns & Bush, 2010). When performing regression analysis normality is not always required when analysing variables. However the results are slightly improved if the data is normally distributed (Tabachnick & Fidell, 2007).

To perform multiple regression analysis, these assumptions must be adhered to:

- **Sample size:** the sample size has to be large enough for the results of the regression analysis to be meaningful (Tabachnick & Fidell, 2007). The sample size must be $N \geq 50 + 8 * m$ for testing multiple correlations, where m is the number of independent variables.
- **Multicollinearity:** multicollinearity should not exist because multicollinearity problems weaken the regression model (Pallant, 2007). Multicollinearity exists when there is a strong relationship between the independent variables. The independent variables must not correlate highly with each other, r value is preferred

to be below 0.7 and an r value of above 0.9 indicates strong correlation which weakens the regression model (Pallant, 2007). To perform the regression analysis there should also be some correlation between the independent variables and the dependent variable, it should not fall below 0.3 (Pallant, 2007). To test multicollinearity the tolerance level must be greater than .10 and the VIF must be less than 10.

- Outliers: this occurs when there is a value that is extreme for one variable or different combinations that are not logical (Tabachnick & Fidell, 2007). According to Tabachnick and Fidell (2007) there are four reasons for having outliers: the data is entered incorrectly, missing values are not detected properly, a case that is entered that does not belong to the population and the population has many extreme values. Mahalanobis is used to detect outliers.

In this study multiple regression analysis was used because there is more than one independent variable. In this study multiple regression analysis was used three different times. The first time, overall service quality was the dependent variable and the service quality dimensions were the independent variables. The second time, satisfaction was the dependent variable and the service quality dimensions were the independent variables. The third time, loyalty was the dependent variable and service quality dimensions were the independent variables. The regression analysis equation and SPSS results can be found in **Appendix 7**.

Regression analysis is used for service quality studies that involve the attitudes and perceptions of consumers or the decisions that consumers make about products (Hair *et al.*, 1998). A study that measured retail service quality by using the RSQS in discount stores in Korea and the US used regression analysis to find the relationship between service quality, behavioural intentions and satisfaction (Kim & Jin, 2001). The dimensions of the service quality were tested as the independent variable while the behavioural intentions and satisfaction were tested as the dependent variables. Another study that used regression analysis measured service quality in Islamic banks by testing the relationship between the overall service quality as the dependent variable and the service quality dimensions as the independent variable (Al-Tamimi & Al-Amiri, 2003). In a study by (Mehta, Lalwani & Han, 2000) regression analysis was used to find the significance of the RSQS dimensions

in explaining the variance in the overall perception of the retail environment. Akbaba (2006) used regression analysis to test the relationship between the overall service quality against the service quality dimensions.

3.7 The validity and reliability of the scale

Reliability and validity of the service quality scale is important for the measurement of service quality and for obtaining meaningful results. Furthermore, reliability is more important when the questionnaire is a Likert-type because there are many variables testing the concept. A questionnaire is considered reliable if it gives similar results when repeated (Hair, 2003).

3.7.1 Reliability

Reliability is an indication of how consistent the findings are based on the method of data collection and analysis (Saunders, Lewis & Thornhill, 2007). According to Zikmund and Babin (2010b, p.334) reliability 'is an indicator of a measure's internal consistency'. The most common method for testing the internal consistency of a scale for reliability is the *Cronbach alpha coefficient* (Hair *et al.*, 1998; Pallant, 2007). The Cronbach alpha coefficient ranges from 0 to 1 with a minimum of 0.6 while other studies suggest that anything above 0.7 suggests high levels of internal reliability (Hair *et al.*, 1998). Hair *et al.* (1998) stated that reliability is a test of the amount of consistency between the different measurements of an individual's response, with the purpose of making sure that these responses are consistent and similar over a period of time and across situations. Furthermore, if the same test was conducted under the same circumstances, then the researcher should find similar results which is called the test-retest method (Zikmund & Babin, 2010a). However, this method has two problems; the first has to do with the test being longitudinal, this indicates that the results for the second test might be influenced by the results of the first test. The second problem is regarding the homogeneity of the test, meaning that the questions might need to be altered slightly (Zikmund, 2003). To check internal consistency, which means that the measure is homogenous, there are several methods such as the *split half method* and the *equivalent form method*. In the split half method, results are split in half and compared to see if the results are similar. With the equivalent form method, the researcher is required to develop two similar scales to test the

same thing and then compare the scales to discover if there are high correlations between the two scales. Therefore, if the scales have a high correlation, the test is reliable (Zikmund, 2003). For the purpose of this research the researcher will use *Cronbach alpha coefficient*, the most common method for testing reliability, and 0.7 will be used as the minimal accepted level. Many studies have used reliability to test their modified service quality scale that ranged from 0.6 to 0.96 (Dabholkar, Thorpe & Rentz, 1996; Sureshchandar, Rajendran & Anantharaman, 2002; Jabnoun & Khalifa, 2005; Akbaba, 2006; Caro & Garcia, 2007; Chowdhary & Prakash, 2007).

3.7.2 Validity

According to Zikmund and Babin (2010b, p.335) validity is “the accuracy of a measure or the extent to which a score truthfully represents a concept”. Validity is concerned with the test being capable of testing what it was designed for, which is not as simple as it seems (Hair, 2003). Normally researchers refer to three types of validity for the testing of a scale (Saunders, Lewis & Thornhill, 2007; Zikmund & Babin, 2010b). Zikmund and Babin (2010b) describe the three types as follows:

1. Face validity or content validity: refers to an agreement between experts that the scale measures what it is intended to and seems to be a good reflection of the scale (Zikmund & Babin, 2010b). To verify face validity, the researcher reviews the literature to find similar scales used by experts in the field and where possible, consults with the experts (Parasuraman, Zeithaml & Malhotra, 2005).
2. Criterion validity: refers to checking the scale to ascertain whether it can give accurate predictions, usually of the dependent variable. Moreover, it could refer to obtaining similar results using different measurements. Criterion validity could be classified as either predictive validity or concurrent validity. The classification depends on the time in which the scale and criterion validity are correlated. Concurrent validity is when the new measure and the validity are carried out at the same time and the measure turns out to be valid. Predictive validity is when the measure predicts a future result. A number of studies that have measured predictive validity include Sureshchandar, Rajendran and Anantharaman (2002); Jabnoun and Khalifa (2005); and Parasuraman, Zeithaml & Malhotra (2005).

3. **Construct validity:** refers to the analysis of the data supporting a part of the study's hypothesis or the scale answering some of the research questions. Construct validity includes convergent validity and discriminant validity. Convergent validity: to have convergent validity, the scores for the category 'excellent' must be higher than the category 'very good' for each of the dimensions (Parasuraman, Zeithaml & Berry, 1988; Aldlaigan & Buttle, 2002). The scores for the category 'good' must also be higher than the scores for the category 'poor' and so on. Discriminant validity shows that the measure is unique in some way. Studies that have measured construct validity include Parasuraman, Zeithaml & Malhotra (2005); and Caro & Garcia (2007). Using a scale outside of its cultural context runs the risk of the instrument not measuring what is was intended to measure. Therefore, it is crucial to test the instrument for construct validity before using it in a different country (Cui, Lewis & Park, 2003).

In this research the researcher will refer to the three types of validity tests when evaluating the validity of the new scale. As discussed earlier some researchers measured one, two or all three types of validity.

3.8 Ethical issues

Cooper & Schindler (2008, p.34) suggest that ethics 'are norms or standard of behaviour that guide moral choices about our behaviour and our relationship with others'. The purpose of ethics is to make sure that nobody is harmed as a result of the research (Cooper & Schindler, 2008). The researcher must follow ethical guidelines when conducting research and especially when there are human subjects involved (Wisker, 2008). Ethical guidelines maintain that the researcher in the case of human subjects must not cause harm, (physical or psychological), to the respondents and must ensure that respondents consent to take part in the research (Wisker, 2008). Therefore, the ethical guidelines protect the respondent from harm from answers given during the interview or any other method used (de Leeuw, Hox & Dillman, 2008). There are two important concerns in survey research: informed consent and protection of confidentiality (Czaja & Blair, 2005; de Leeuw, Hox & Dillman, 2008). According to de Leeuw, Hox & Dillman (2008) informed consent and protection of confidentiality are as follows:

- **Informed consent:** Ensures that the researcher is providing sufficient information to the respondents about the potential harm that may occur should they choose to

participate. The researcher must also make sure the respondent understands the information. Furthermore, the researcher must not exert pressure on the respondent or influence them in anyway. Finally, there should be evidence that the respondents agreed to participate in the research.

- **Confidentiality Protection:** The biggest risk or harm that might affect the respondents is breach of confidentiality. This could lead to embarrassment, loss of employment or even criminal prosecution. Confidentiality might be breached by forgetting to remove respondent's personal details from the form such as name, telephone number or address which might lead to personal risk to the respondent. Another breach of confidentiality might be that the information is not stored properly, for example, unauthorised personnel might be able to access it. Finally, another threat might be the statistical analysis this could lead to the respondent's identity becoming known to people by releasing too much information.

The questionnaire cover sheet explained the purpose of the study and asked for the participant's consent. If the respondent did not consent to the questionnaire, they were under no obligation to continue. Confidentiality was maintained as participants were informed not to write their names, or leave any comments that may identify them. Harm was not an issue in this survey because participants were not asked any personal questions, they were asked about the products and services provided at Al Waha. Respondents remained anonymous to the author because no names were used. Finally, the college management agreed that this survey could be conducted.

3.9 Scale modification

Evidence from past research suggests that using a generic scale to measure service quality across industries is not suitable without modification (Akbaba, 2006; Caro & Carcia, 2008; Ladhari, 2008); therefore, the more specific the measure is, the more valuable the potential information could be (Karatepe, Yavas & Babakus, 2005; Ladhari, 2008). It is common for scales to be modified when measuring service quality, and this has been done by many researchers who felt the need for industry specific measures (Karatepe, Yavas & Babakus, 2005; Chowdhary & Prakash, 2007) and culture specific measures (Cui, Lewis & Park, 2003; Karatepe, Yavas & Babakus, 2005; Prayag, 2007). To customise a scale or adapt questions that have already been used in other studies is more efficient than using

questions that have not been tested, given that they are adequate for collecting the data needed by the researcher (Saunders, Lewis & Thornhill, 2007).

The SERVQUAL scale extends across many industries and cultures. For this reason it becomes a weaker instrument that is used as a base for developing new service quality scales in different cultures (Gaur & Agrawal, 2006). The SERVQUAL and the RSQS are two scales that are most frequently used to measure retail service quality. However, they are not suitable for use in other cultures without modifications (Gaur & Agrawal, 2006). A study conducted in Singapore set out to discover what the most appropriate scale was, RSQS or SERPERF, which only measures the perception level of service, in supermarkets and electronic retailers. They found that RSQS is superior in an environment where there are more goods and less services e.g. supermarkets, while SERPERF is more appropriate for environments where services are more important than goods e.g. electronic retailers (Mehta, Lalwani & Han, 2000). Based on the fact that scales need to be industry specific and culturally sensitive, and because Al Waha has more goods than services, the researcher decided to modify a scale based on the RSQS.

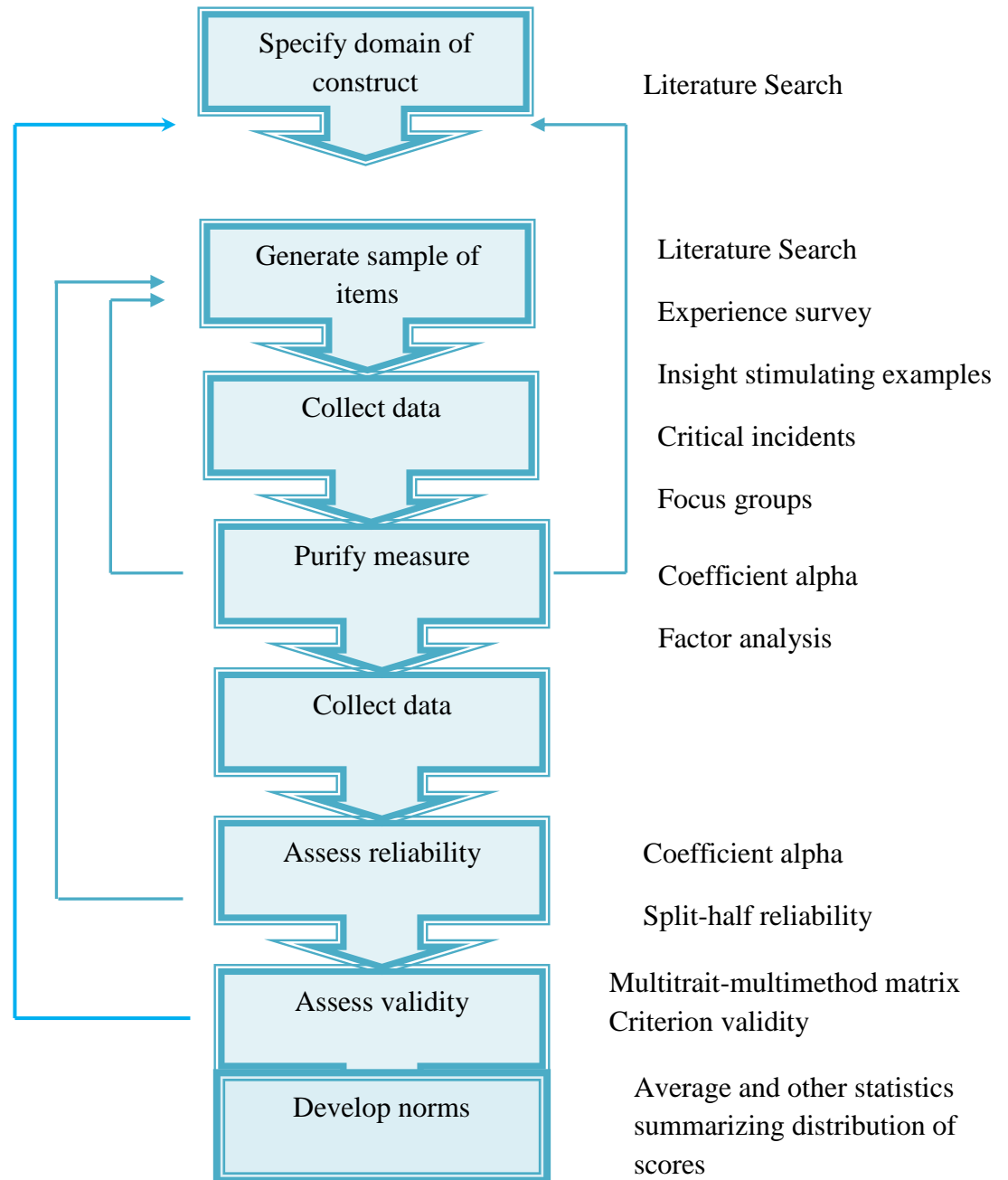
Some evidence of how scales can be modified:

- Literature review to find scale items or scales that have been used in the past by different researchers (Akbaba, 2006; Ladhari, 2008).
- Interviews, which is a qualitative method was used by many researchers including Dabholkar, Thorpe and Rentz, (1996); Jabnoun & Khalifa, (2005); Karatepe, Yavas & Babakus, (2005) and Caro & Garcia (2008). Others such as Kaul (2007) and Siu & Cheung (2001) used pre-test interviews to determine if there were any items not mentioned on the RSQS. Karatepe, Yavas & Babakus (2005) developed a scale based on one-on-one interviews to measure service quality in banks in Northern Cyprus. The interviews of 86 bank customers were tape recorded as part of the qualitative research in order to generate items for the service quality scale for banks. The taped interviews were written in paragraphs after three coders listened to the tapes and agreed on the content of each paragraph. The coders' generated 56 items, agreeing on 31 items after the deletion of items they felt were redundant. The quantitative approach used the 31 item scale to collect data from 115 bank customers. The scale was a 5 point Likert scale that asked the respondents to rate each item from 5= strongly agree to 1 = strongly disagree (Karatepe, Yavas & Babakus, 2005).

- Focus groups which is another form of qualitative method, was used by Khan (2003); Wilkins (2007) and Aldlaigan (2002). Wilkins (2007) used focus groups combined with the literature review to find themes that affected hotel service quality and identified 63 items that related to service quality in hotels.
- Observation was used by Dabholkar, Thrope and Rentz (1996) for evaluating customers shopping experiences. Three customers were observed to find information about their shopping behaviour and their interaction with the employees of the store Dabholkar, Thrope and Rentz (1996).
- Brain storming was used by Jabnoun and Khalifa (2005) to develop a scale to measure service quality in banks in the United Arab Emirates. They followed a qualitative method by asking 15 students, taking an MBA course, to brainstorm and come up with items for a service quality scale specific to the UAE. From the items that were generated, the authors decided to group them into seven dimensions. They then piloted the study, and as a result of factor analysis the final scale consisted of 29 items. The scale was used to measure perceived service quality in conventional and Islamic banks in the UAE.
- Information obtained from experts: this method was used by Akbaba (2006) and Parasuraman, ZelthamI & Berry (1985), Parasuraman, ZelthamI & Berry (1985) for example, interviewed fourteen executives from four different industries and asked them questions related to service quality.

Researchers in the past used one or more of the methods mentioned above to modify their scale. The researcher of this study modified the scale to make it more context specific because it is a college retail shop located in the Middle East. The classical procedure for scale modification was developed by Churchill (1979) who is considered an expert in the field of scale modification and is referred to by many authors including most recently by Ahmad *et al.* (2009) who suggested that these scale modification steps are considered as procedures for making the scales more robust. Consequently, the researcher of this study followed these steps, illustrated in the figure below, to modify the RSQS scale.

Figure 3.3: Scale modification steps



Source: (Churchill, 1979; Ahmad *et al.*, 2009)

Figure 3.3 above shows the scale modification steps proposed by Churchill (1979) and later proposed by Ahmad *et al* (2009). The steps taken in this research are summarised below:

- Specify domain of construct: based on an extensive review of the literature it was concluded that the most suitable scale for measuring retail service quality is the RSQS scale with some modification. Interviews were used to modify the RSQS scale to make it more context specific to the college shop.
- Generate sample of items: as a result of the interviews twelve new items were added to the scale which produced a 40 item scale. The twelve interview questions were linked to the literature to make the initial draft of the scale more robust. The 40 item scale was then used for phase one of the study.
- Collect data: probability sampling was used in this study which is the preferred method for surveys (Saunders, Lewis & Thornhill, 2009) and the type of probability sampling used was systematic sampling as suggested by Dabholkar, Thorpe & Rentz (1996) for their study. A total of 350 questionnaires were distributed, 303 usable questionnaires were used for phase one of the study analysis using the modified RSQS scale.
- Purify measure: to purify the scale exploratory factor analysis was performed for the modified RSQS scale. A principal component analysis with varimax rotation was used and this reduced the 40 item scale to 22 items. After purifying the scale the validity and reliability of the scale needs to be tested. The reduced scale was used for the main study.
- Collect data: a total of 500 questionnaires were distributed and 424 questionnaires were used for data analysis for the main study.
- Assess reliability: the reliability of the scale used in the main study was tested using coefficient alpha which showed the scale to have highly reliability.
- Assess validity: the validity of the scale was tested using three types of validity, face validity, criterion validity and construct validity.
- Develop norms: hypotheses were tested and conclusions were reached.

3.9.1 Interviews

As previously stated, numerous studies have used interviews (Parasuraman, Zeithaml & Berry, 1998; Karatepe, Yavas & Babakus, 2005; Seth, Deshmukh & Vrat, 2006; Caro & Garcia, 2007); or focus groups (Khan, 2003; Jabnoun & Khalifa, 2005; Olorunniwo & Hsu, 2006; Wilkins, Merrilees & Herington, 2007) to refine their service quality scales. Others such as Kaul (2007) and Siu & Cheung (2001) used pre-test interviews to find out if there were any items not mentioned on the RSQS.

The researcher in this study used interviews to modify the phase one of the study scale and sought confirmation from the literature review. In order to obtain information from Al Waha customers the researcher interviewed six customers for the study. The researcher selected the interviewees from customers that most frequently shopped at Al Waha. They were approached and asked if they would like to participate in this study to improve Al Waha services. To maintain the interviewees' anonymity the researcher refers to the interviewees as Interviewee 1 and Interviewee 2 and so on. The interviewees were informed the interview might take approximately an hour and all six interviewees agreed. The interviews were conducted over a period of two weeks and each day one customer was interviewed after agreeing on a specific date and time. The researcher built a rapport with the customers by talking generally and asked the interviewees to answer the questions honestly. The researcher reassured the interviewees that this would not affect them in any way and that their names would stay anonymous. The researcher asked the interviewees open ended questions about how service quality in the shop could be improved; the researcher did not interrupt the interviewees and kept the discussion flowing by asking them different questions regarding any factors that they thought important or, from their experience, factors that influence service quality. Some of the questions were adapted from (Chowdhury, Reardon & Srivastava, 1998) and are listed below:

- What is the first thing that comes to mind when thinking of Al Waha?
- List any feelings and thoughts that come to mind when thinking of Al Waha?
- How would you describe the store to a friend?
- What do you like most about Al Waha?
- What do you like least about Al Waha?

The interview process was very informative and lasted over an hour for each of the six respondents. As mentioned earlier, these customers were chosen because they are customers that most frequently visit the shop and when approached they agreed to take part in the interview. The whole process was very smooth, the customers were willing to give their opinions about the shop and they suggested ways for improving the questionnaire. From the interviews some important themes emerged. These are listed below and a full justification can be found in **Appendix 3**. The new items are as follow:

- Female customers feel more comfortable buying from female employees
- Al Waha policies on returns are clearly laid out
- Al Waha offers branded products
- Usually I do not complain if the services are bad because services are provided by an Emirati employee
- The well-being of Al Waha workers is important to me
- I feel good when I receive good services from employees of Al Waha
- Customers feel that Al Waha employees have lower social status
- Employees of Al Waha give equal treatment to all customers
- There are no long queues in front of the cashier
- Customers can easily identify Al Waha employees
- Al Waha emails and advertisements attract customers
- There is a warm relationship between employees of Al Waha and customers

For a full justification refer to **Appendix 3**. Column 1 in the appendix shows a summary of responses the interviewees gave during the interview. The second column shows the item that was added to the new modified scale from the responses of the interviewees. This process was not easy when trying to find an item that best agreed with the comments of the six interviewees. To make the process more robust the researcher linked these items to the literature review and occasionally used items from the literature review that were most suitable for the interviewees' comments. The link between the comments of the interviewees and the link to the literature review is presented in column three. Column four places the new items under a suitable dimension based on the original RSQS dimensions. A total of twelve questions based on the interviews were added to the RSQS scale to make it more appropriate for measuring service quality at the college shop.

3.9.2 The development of the final scale to be used in the phase one of the study

The new modified scale used for this study was divided into three sections: the first section contained five demographic questions which required respondents to choose an option related to age, gender, marital status, education level and income level. The second section contained 40 items that asked respondents to choose a number on the Likert scale that best describes the way they feel about shopping at Al Waha: 1 strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree and 5 strongly agree. The third section contained four questions: one to measure the overall service quality, one question to measure loyalty, one question to measure satisfaction and the last question in the section to measure frequency of visits.

Some additional questions were added to the scale to fully address the research questions. To measure the overall service quality of Al Waha, one item was used: "Overall, how would you rate the quality of service you receive at Al Waha?" This same question was used to measure overall service quality in a study on hotels in Turkey. It examined the SERVQUAL in an international setting and found that one item is an appropriate measure (Akbaba, 2006). This is similar to another study that used one question to measure overall service quality in a UK football stadium (Martin *et al.*, 2008). Jamal & Anastasiadou (2009) argue that using a single item to measure overall service quality is more appropriate than using an aggregate approach for the overall service quality. Using an aggregate approach is not recommended when an analysis is done at the dimensional level and when investigating the relationships between the dimensions, satisfaction and loyalty (Jamal & Anastasiadou, 2009). Another study by Gilbert & Veloutsou (2006) also used one item in its attempt to find the main themes of customer satisfaction in six different industries and the responses were measured on a five point Likert scale ranging from 5 = very good to 1 = very poor.

One item was used to measure the overall satisfaction of the customers with the services of Al Waha and this item is similar to an item that was added by Nadiri & Hussain (2005) when they measured perception of service quality in a Cyprus hotel. The question was: "Overall, how satisfied are you with Al Waha services?" Another study that examined the relationship between the stores attributes and customer satisfaction and the effect of customer satisfaction on sales performance used one question to measure overall customer satisfaction (Gomez, McLaughlin & Wittink, 2004). Many researchers have used one item to measure customer satisfaction and found it sufficient (Diaz-Martiz *et al.*, 2000; Choi &

Chu, 2001; Drolet & Morrison, 2001; Voss *et al.*, 2004; Baumann *et al.*, 2007; Howat, Crilley & McGrath, 2008).

There is no consensus on the number of items to measure loyalty. Some researchers used as many as twelve items to measure loyalty (Wong & Sohal, 2003). In their study, Wong and Sohal (2003) tried to measure the impact of loyalty on service quality dimensions in a chain store in Australia using a mix of loyalty items from different scales. Other researchers used two items to measure service quality (Yen & Gwinner, 2003; Howat, Crilley & McGrath, 2008) and found that more than one item for measuring loyalty probably provides a better measure than using just one (Soderlund, 2006). In a study to measure loyalty in a DIY (Do It Yourself) loyalty programme, three questions were used (Vesel & Zabkar, 2009). Other researchers recommend a single item measure of loyalty “How likely is it that you would recommend (company X) to a friend or colleague?” (Murray & Howat, 2002; Reichheld, 2003). According to Reichheld (2003) the most effective question, based on a survey that involved 4,000 consumers for measuring loyalty across different industries, is the aforementioned single item question. Additional support from Soderlund (2006), argues that if loyalty is the focus of the research, then an aggregate measurement of loyalty is not appropriate, meaning more than one item is needed. Based on the above discussion, the author used a single item to measure loyalty on a 5 point Likert scale with 5 being extremely likely, 4 likely, 3 not likely, 2 unlikely, and 1 extremely unlikely. This is deemed appropriate, as the focus of this research is not customer loyalty. According to Vesel & Zabkar (2009), measuring loyalty by asking customers about how much they like the shop or if they will recommend the shop to others is called attitudinal measurement. On the other hand behavioural measurement is concerned with the frequency of visits, purchase history and the amount of money spent in the shop.

One item was used to measure the frequency of visits at Al Waha and this item is similar to an item that was added by (Akbaba, 2006) when they measured service quality in a Turkish hotel. The question is “How often do you visit Al Waha?” A study by Johnson, Sivadas & Garbarino (2008) found affective commitment is positively related to frequency and duration of customer visits. Another study that assessed electronic service quality used a question to ask customers how often they visited the website (Parasuraman, Zeithaml & Malhotra, 2005).

The relationship between service quality dimensions satisfaction and loyalty was tested at the dimensional level by many authors such as Jamal & Anastasiadou (2009), (Zhou, 2004) and (Al-Tamimi & Al-Amiri, 2003). Three items out of the four items added at the end of the questionnaire are similar to three items used in a study to measure service quality in Turkish banks by Karatepe, Yavas & Babakus (2005); the study used a single item to measure overall service quality; a single item to measure overall customer satisfaction and a single item question to measure the purchase intention. The questions are:

1. Overall, how would you rate the quality of service you received in Al Waha?
2. Overall, how satisfied are you with Al Waha services?
3. How likely is it that you would recommend Al Waha to a friend or colleague?
4. Frequency of visits

The new modified RSQS scale can be seen in **Appendix 4**.

3.10 Conclusion

This chapter gave an overview of the methodology used in this study which was selected to support the objectives of the study. The researcher followed an objective epistemology and a positivist approach as these approaches are usually used in service quality studies. A survey was used in this study as part of the quantitative approach. The original RSQS scale was modified to be more context specific and culturally sensitive. Based on the interviews the RSQS scale was modified by adding twelve items to make it more appropriate for the college shop. Each question that was based on the interviews was then linked to the literature review to make the process more robust. This resulted in a 40 items scale which was used in the phase one of the study to ensure the scale was suitable for the main study.

The researcher followed the steps recommended by Churchill (1979) when modifying the scale, by reviewing the literature to find the most suitable scale, then generating items to be used for the new scale was done based on the interviews. Data was collected for the phase one of the study by distributing a total of 350 questionnaires and 303 were found to be usable. Factor analysis was used as part of purifying the pilot scale which resulted in the deletion of 18 items. The new 22 item scale was subjected to reliability and validity tests to make sure it was appropriate for the main study. After scale purification was performed the reliability and validity of the scale was tested. The final step was to test the hypotheses and reach conclusions. The new scale was used in the main study and 500 questionnaires were distributed of which 424 were used in the data analysis.

All of the previously mentioned steps were part of achieving objective one which is to create a scale that is suitable and usable for the college shop. The second objective was to test the relationship between the service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits. To achieve this, regression analysis was performed to establish the relationship between the service quality dimensions and overall service quality, satisfaction and loyalty. Correlation analysis was performed to find the strength of the relationship between the service quality dimensions and frequency of visits. The third objective of the study was to test the difference between service quality dimensions and demographic information.

Chapter 4

The Modified Scale: Phase One

Chapter 4: The Modified Scale: Phase One

4.0 Introduction

The purpose of this chapter is to test the new modified scale for its appropriateness for the main study. It is important to test the reliability and validity of the scale after it is modified. To purify the scale and test its validity an exploratory factor analysis was conducted. This is followed by demographics of the phase one of the study which shows the breakdown of the sample.

An exploratory factor analysis for the modified scale was performed for scale reduction followed by a reliability evaluation of the scale. The factor analysis produced dimensions that were different from the original RSQS dimensions and this led the researcher to choose new names for the dimensions. The naming of the dimensions was linked to the literature to find suitable names for the dimensions. The chapter concluded with a scale that is suitable for measuring service quality at the college shop and this scale was used in the main study.

4.2 General demographic information about respondents

The questionnaire was given to customers who visited Al Waha. In total, 350 questionnaires were distributed, and 303 completed questionnaires were used for this study. The descriptive statistics in this study show the different demographic characteristics of the studied sample. The results are presented in **Table 4.1** below; missing values exist for a few of the responses to some of the demographic questions:

Table 4.1: Demographic information for respondents

Group	Frequency	Valid Percent
Age		
15-20	190	63.1 %
21-26	100	33.2 %
Other	11	3.7%
Gender		
Female	294	97%
Male	9	3%

Marital status		
Single	243	81%
Married	43	14.3%
Other	14	4.7%
Education level		
Diploma	193	64.1%
Higher Diploma	65	21.6%
Bachelor degree	43	14.3%
Family income		
Below 10,000 AED	61	20.3%
10,000-20,000	102	34%
20,000-30,000	47	15.6%
Above 30,000 AED	90	30%

The main demographic information of respondents is summarized below:

- The majority of the customers (96.3%) surveyed were 26 years old or younger
- The majority of the customers were females (97%)
- The majority of the people surveyed were single (81%)
- Of the customers surveyed, 64.1% were diploma students
- Of the customers surveyed, 45% reported having a family income above 20,000

4.3 Exploratory Factor analysis

As discussed in the methodology chapter the RSQS scale was modified to be more appropriate for the context of the retail shop at Dubai Women's college. It is important to purify the scale to find out whether it is suitable. To do so, a factor analysis was conducted to verify the construct validity of the scale and for scale reduction. A principal component analysis was performed on the scale using a varimax rotation that shows the factor loadings for the scale.

There were a total of 40 items in phase one of the retail service quality questionnaire and five demographic questions. All 28 items on the original RSQS scale were retained and 12 new items were added based on in-depth interviews, as discussed in the methodology chapter. After performing the principal component analysis with Varimax rotation, items

were identified for reduction or removal. From the rotated Component Matrix table, any items that had a loading of 0.5 or less were removed. Each time a statement was removed, the PCA test was performed again, resulting in the removal of 18 rejected items in total; the resulting new scale had 22 items.

The 22-item scale was subjected to a principle component analysis using SPSS version 17, resulting in 4 dimensions, which is different from the original RSQS five dimensions. To be able to use factor analysis for the current study; the KMO measure of sampling adequacy and Barrlett's test must be performed. The KMO measure of sampling adequacy for this study; 0.945, is well above the minimal value of 0.6. The Barrlett's test of sphericity is 0.000 which is significant at the 0.01 level, which means that factor analysis could be performed on this study, indicating that the scale is usable.

The outcome of the factor analysis thus reveals that the 22 item-scale produced 4 dimensions that have an Eigenvalue of more than 1. **Table 4.2** shows that the aggregate total for these four dimensions is 59.336%, which means that these four dimensions account for 59.336% of the total variation. The factor analysis for each of the dimensions is:

- Dimension 1 alone accounted for 41.730% of the variation in the modified scale; this means that 41.730% of the variance in the questionnaire is due to Factor 1.
- Dimension 2 accounts for 7.621% of the variance in the modified scale.
- Dimension 3 accounts for 5.358% of the variance in the modified scale.
- Dimension 4 accounts for 4.987% of the variance in the modified scale.

Table 4.2: Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation sums of squared loading		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	9.598	41.730	41.730	9.598	41.730	41.730	4.018	17.471	17.471
2	1.670	7.261	48.991	1.670	7.261	48.991	3.799	16.519	33.991
3	1.232	5.358	54.348	1.232	5.358	54.348	3.004	13.062	47.052
4	1.147	4.987	59.336	1.147	4.987	59.336	2.825	12.283	59.336

Extraction method: Principal Component Analysis

The rotated component matrix shows the grouping of the items under each factor.

Moreover, the validity of the modified questionnaire (22 items) was measured using factor loadings for each item on the questionnaire. **Table 4.3** shows the factors loading for each item on the questionnaire are all above 0.5.

Table 4.3: Rotated component analysis

Item	Component			
	1	2	3	4
Employees in Al Waha are able to solve customers' problems immediately	.646			
Customers can easily identify Al Waha employees	.629			
Employees in Al Waha tell customers exactly when services will be performed	.680			
When a customer has a problem, Al Waha makes an effort in solving it	.577			
Al Waha gives customers individual attention	.673			
Employees in Al Waha give fast services to customers	.587			
Al Waha has product available when the customers want it	.521			
Al Waha performs the services right the first time	.507			
Employees in Al Waha are never too busy to respond to customer's request	.740			
The inside of Al Waha is neat		.702		
Al Waha layout makes it easy for customers to find what they need		.768		
Al Waha layout makes it easy for customers to move around in the store		.726		
Al Waha store has a modern look		.652		
Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing		.695		
When Al Waha promises to do something by a certain time, it will do so		.600		
There is a warm relationship between employees of Al			.766	

Waha and customers				
I feel good when I receive good services from employees of Al Waha			.760	
Employees of Al Waha give equal treatment to all customers			.638	
The well-being of Al Waha employees is important to me			.556	
Al Waha should offer its own credit cards				.759
Al Waha should accept most major credit cards				.735
Al Waha's policies on returns are clearly laid out				.726

Extraction method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

As **Table 4.3** illustrates, and contrary to the original five RSQS dimensions, this study produced four dimensions. However, this scale was tested in a non-Western country and some differences were thus to be expected. A study by Jabnoun & Khalifa (2005) of the banking industry in the UAE resulted in four dimensions. As discussed in the literature review chapter, other studies have found as little as one dimension and as many as 10. The new scale is presented in **Table 4.4** below; a full explanation of the removed items follows in the scale reduction section.

Table 4.4: 22 item Service quality scale

Dimension 1
Employees in Al Waha are able to solve customers' problems immediately
Customers can easily identify Al Waha employees
Employees in Al Waha tell customers exactly when services will be performed
When a customer has a problem, Al Waha makes an effort in solving it
Al Waha gives customers individual attention

Employees in Al Waha give fast services to customers
Al Waha has product available when the customers want it
Al Waha performs the services right the first time
Employees in Al Waha are never too busy to respond to customer's request
Dimension 2
The inside of Al Waha is neat
Al Waha layout makes it easy for customers to find what they need
Al Waha layout makes it easy for customers to move around in the store
Al Waha store has a modern look
Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing
When Al Waha promises to do something by a certain time, it will do so
Dimension 3
There is a warm relationship between employees of Al Waha and customers
I feel good when I receive good services from employees of Al Waha
Employees of Al Waha give equal treatment to all customers
The well-being of Al Waha employees is important to

me
Dimension 4
Al Waha should offer its own credit cards
Al Waha should accept most major credit cards
Al Waha's policies on returns are clearly laid out

4.4 Scale reduction

The purpose of scale reduction is to minimize the number of variables so as to be able to analyze the items further and reduce redundancy. After the principal component analysis was performed using a Varimax rotation, certain items were identified for reduction or removal. From the rotated Component Matrix table, any items that had a loading of 0.5 or less were removed. Each time a statement was removed, the PCA test was performed again resulting in the removal of 18 rejected items in total. The new scale called Al Waha Service Quality Scale (ASQS) can be seen in **Appendix 5**.

Table 4.5 below shows the 18 items that were rejected and the order in which they were rejected. The second column shows the dimensions the rejected items fell under, and the third column shows whether the items were based on the original RSQS, or on an added question based on interviews.

Table 4.5: Eighteen Rejected items

Item	Dimension	Origins of the item
Employees in Al Waha treat customers courteously on the telephone	Personal Interaction	Original RSQS
The behavior of employees in Al Waha is professional with customers	Personal Interaction/assurance	Original RSQS
Al Waha insists on accurate sales transactions	Reliability	Original RSQS
Employees in Al Waha have the knowledge to answer customers'	Personal Interaction/assurance	Original RSQS

questions		
Female customers feel more comfortable buying from female employees	Caring and commitment	Interviews
I usually don't complain if the services are bad because services are provided by Emirati employees	Caring and commitment	Interviews
Customers feel that Al Waha employees have lower social status	Caring and commitment	Interviews
Al Waha willingly handles exchanges	Problem Solving	Original RSQS
Al Waha provides plenty of convenient parking for customers	Policy	Original RSQS
Al Waha offers branded products	Policy not on RSQS	Interviews
Al Waha has operating hours convenient for most of its customers	Policy/empathy	Original RSQS
Al Waha provides its services at the time it promises to do so	Reliability	Original RSQS
There are no long queues in front of the cashier	Problem solving not on RSQS	Interviews
Employees of Al Waha are consistently courteous with customers	Personal Interaction	Original RSQS
Customers feel safe in their transactions with Al Waha	Personal Interaction	Original RSQS
Al Waha offers high quality products	Policy	Interviews
Al Waha emails and advertisements attract customers	Policy not on RSQS	Interviews
Al Waha should offer its own public areas (Restrooms, fitting rooms) that are clean, attractive, and convenient	Physical aspects	Original RSQS

4.5 Reliability evaluation of the scale

A reliability analysis was carried out for the modified new scale before and after the reduction of the scale. The analysis of the modified scale for the phase one of the study showed that the reliability of the scale was high, which indicates that the scale is suitable for measuring retail service quality in a college shop.

The modified 22-item scale has a high reliability, with a Cronbach's alpha coefficient of 0.934, which means that this scale is appropriate for the shop in which it was tested. The reliability for each of the 22 items under the Column Cronbach's alpha if the item deleted is between 0.929 to 0.933, which is below the overall reliability of 0.934, meaning that if the items are deleted the overall reliability of the scale will not increase. The high reliability of the scale is an indication that the scale is suitable for the college shop, especially given that all items on the modified scale range between 0.929 and 0.933. Furthermore, the reliability was performed for each dimension separately, with the results presented in Table 2 and which are as follows:

- Dimension1 has a Cronbach's alpha coefficient of 0.875, which suggests very high internal consistency. All the items under that factor have a 'Cronbach's alpha if item deleted' ranging between 0.850 and 0.865, which is below the overall reliability for that factor, meaning that removal of any of the items under this factor would not increase the overall reliability of that factor.
- Dimension 2 has a Cronbach's alpha coefficient of 0.853 and all the items under that factor have a 'Cronbach's alpha if item deleted' ranging between 0.802 and 0.849, which is below the overall reliability for that factor, meaning that removal of any of the items under this factor would not increase the overall reliability of that factor.
- Dimension 3 has a Cronbach's alpha coefficient of 0.831 and all the items under that factor have a 'Cronbach's alpha if item deleted' between 0.788 to 0.818 which is below the overall reliability for that factor, meaning that removal of any of the items under this factor would not increase the overall reliability of that factor.
- Dimension 4 has a Cronbach's alpha coefficient of 0.824 and all the items under that factor have a 'Cronbach's alpha if item deleted' ranging between 0.773 and 0.810, which is below the overall reliability for that factor, meaning that removal of

any of the items under this factor would not increase the overall reliability of that factor.

4.6 The new dimensions

In order to explain the new dimensions, a comparison was done of the original RSQS scale and the new modified RSQS scale, hereafter called the Al Waha service quality scale (ASQS). This comparison, found in **Table 4.6** below, facilitates the naming of the new dimensions. Dimension 1 for this study is a combination of the reliability dimension, personal interaction and problem-solving on the original RSQS scale. Reliability on the original RSQS scale had 5 items; only 2 were retained in this study. Personal interaction had 9 items on the original RSQS scale; only 4 were retained in this study. Problem-solving on the original RSQS had 3 questions; 2 of the items were retained and a new problem-solving item added based on the interviews. Dimension 1 is unique in this study in having a total of 9 items. According to Kueh & Voon (2007), it is not uncommon to find the three dimensions of SERVQUAL - responsiveness, empathy and assurance - combined into one dimension. This suggests that some studies have found that more than one dimension is best combined with other dimensions. Dimension 2 in this study consisted of six items; five are the same as the items under the physical aspects dimension in the original RSQS scale, which consisted of 6 items. Dimension 3 in this study consists of four items which are not similar to any of the items on the original RSQS scale. Dimension 4 in this study consists of three items; two are similar to the items under the policy dimension on the original RSQS scale, which consisted of five items.

Table 4.6: Comparison between original RSQS dimensions and this study's dimensions

The original RSQS	Al Waha service quality scale
Reliability	Dimension 1
When the store promises to do something by a certain time, it will do so	
This store provides its services at the time it promises to do so	
This store performs the service right the	Al Waha performs the services right the

first time	first time
This store has merchandise available when the customers want it	Al Waha has product available when the customers want it
This store insists on error-free sales transactions and records	
Personal interaction	
Employees in this store have the knowledge to answer customer's questions	
The behavior of employees in this store instills confidence in customers	Employees in Al Waha are never too busy to respond to customer's request
Customers feel safe in their transactions with this store	
Employees in this store give prompt service to customers	Employees in Al Waha give fast services to customers
Employees in this store tell customers exactly when services will be performed	Employees in Al Waha tell customers exactly when services will be performed
Employees in this store are never too busy to respond to customer's requests	
This store gives customers individual attention	Al Waha gives customers individual attention
Employees in this store are consistently courteous with customers	
Employees of this store treat customers courteously on the telephone	

Problem solving	
This store willingly handles returns and exchanges	
When a customer has a problem, this store shows a sincere interest in solving it	When a customer has a problem, Al Waha makes an effort in solving it
Employees in this store are able to handle customer complaints directly and immediately	Employees in Al Waha are able to solve customers' problems immediately
	Customers can easily identify Al Waha employees
Physical aspects	Dimension 2
The store has modern-looking equipment and fixtures	Al Waha store has a modern look
The physical facilities at this store (such as fixtures and fittings) are visually appealing	The inside of Al Waha is neat
Materials associated with the store's service (such as shopping bags, catalogues or statements) are visually appealing	Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing
This store has clean and attractive public areas (Restrooms, fitting rooms)	
The store layout at this store makes it easy for customers to find what they need	Al Waha layout makes it easy for customers to find what they need
The store layout at this store makes it easy for customers to move around in the store	Al Waha layout makes it easy for customers to move around in the store

	When Al Waha promises to do something by a certain time, it will do so
	Dimension 3
	There is a warm relationship between employees of Al Waha and customers
	I feel good when I receive good services from employees of Al Waha
	Employees of Al Waha give equal treatment to all customers
	The Well-Being of Al Waha employees is important to me
Policy	
This store offers high quality merchandise	
This store provides plenty of convenient parking for customers	
This store has operating hours convenient for all its customers	
This store accepts most major credit cards	Al Waha should accept most major credit cards
This store offer its own credit cards	Al Waha should offer its own credit cards
	Al Waha's policies on returns are clearly laid out

Table 4.6 above shows clearly that dimension 1 is a combination of the reliability dimension, personal interaction and problem solving on the original RSQS scale.

Dimension 3 of this research study is a new dimension; the items under this dimension

match none of the items under the original RSQS scale. This situation requires renaming the dimensions, as done in the next section.

4.7 Discussion of the results

Dimension 1

By comparing the items under Dimension 1 of this study (presented in **Table 4.7** below) with the study of service quality in a Turkish hotel (Akbaba, 2006); it seems that 5 items of dimension 1 of this study are similar to items under the adequacy in service supply dimension in the Turkish study. The adequacy in service supply dimension in the Turkish study had a total of seven items.

Another comparison was done between Dimension 1 of this study (presented in **Table 4.8** below) with the study of service quality in a Turkish hotel (Karatepe, Yavas & Babakus, 2005); it seems that 5 items of Dimension 1 of this study are similar to items under the interaction quality dimension of the Turkish study. The interaction quality dimension in the Turkish study had a total of eight items. Based on these two comparisons, detailed below, it seems that Dimension 1 of this study is a better fit with the items in **Table 4.8**; therefore dimension one of this study will be called “interaction quality.” Interaction quality is described as the “attitudes and behaviors of the service provider and their interaction style with the customers” (Karatepe, Yavas & Babakus, 2005, p.375).

Table 4.7: Dimension1 (part 1)

Dimension 1 (this study)	Adequacy in service supply (Akbaba, 2006)
Al Waha performs the services right the first time	Performing the services right the first time
Al Waha has product available when the customers want it	The hotel provides consistent services
Employees in Al Waha are never too busy to respond to customer's request	Employees are always willing to serve customers
Employees in Al Waha give fast services to customers	

Employees in Al Waha tell customers exactly when services will be performed	The hotel provides the services as they were promised
Al Waha gives customers individual attention	Employees are always available when needed
When a customer has a problem, Al Waha makes an effort in solving it	
Employees in Al Waha are able to solve customers' problems immediately	
Customers can easily identify Al Waha employees	

Table 4.8: Dimension 1(part2)

Dimension 1 (this study)	Interaction quality (Karatepe, Yavas & Babakus, 2005)
Al Waha performs the services right the first time	Employees of this bank are experienced
Al Waha has product available when the customers want it	
Employees in Al Waha are never too busy to respond to customer's request	Employees of this bank are understanding of customers
Employees in Al Waha give fast services to customers	Employees of this bank meet customers' requests quickly
Employees in Al Waha tell customers exactly when services will be performed	
Al Waha gives customers individual attention	Employees of this bank are polite to customers

When a customer has a problem, Al Waha makes an effort in solving it	
Employees in Al Waha are able to solve customers' problems immediately	Employees of this bank have the knowledge to respond to problems
Customers can easily identify Al Waha employees	

Dimension 2

Comparing the items under dimension 2 of this study (presented in **Table 4.9** below) with the original RSQS scale, it becomes clear that five of the six items in this dimension are the same as five items in the physical aspects dimension in the original RSQS study.

Therefore, Dimension 2 in this study will be called the “physical aspects” dimension.

Table 4.9: Dimension 2

Dimension 2 (this study)	Physical aspects (RSQS scale)
Al Waha store has a modern look	The store has modern-looking equipment and fixtures
The inside of Al Waha is neat	The physical facilities at this store (such as fixtures and fittings) are visually appealing
Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing	Materials associated with the store's service (such as shopping bags, catalogues or statements) are visually appealing
	This store has clean and attractive public areas (Restrooms, fitting rooms)
Al Waha layout makes it easy for customers to find what they need	The store layout at this store makes it easy for customers to find what they

	need
Al Waha layout makes it easy for customers to move around in the store	The store layout at this store makes it easy for customers to move around in the store
When Al Waha promises to do something by a certain time, it will do so	

Dimension 3

Comparing the items under Dimension 3 of this study (presented in the **table 4.10** below) with the study of service quality in a Turkish hotel (Akbaba, 2006), it appears that three of the four items of Dimension 3 of this study are similar to the items under the understanding and caring dimension in the Turkish study. The understanding and caring dimension in the Turkish study had a total of five items.

Another comparison was done between Dimension 3 of this study (presented in the **Table 4.11** below) with a study by Davis-Sramek *et al.*(2009). Three items of this research study fit loosely with the items on the affective commitment dimension in that study. The same applies to the information in **Table 4.12** when comparing the items under the dimension of this study with the items under the affective commitment dimension in the Fullerton (2005) study. It appears that three items of this research study fit loosely with the items of the affective dimensions in that study. The same applies to the information in **Table 4.13** when comparing the items under the dimension of this study with the items under the affective attitude in Baumann *et al* (2007). It appears that three items of this research study fit loosely with the items of the affective attitude dimensions in that study. The same applies to **Table 4.14** when comparing the items under Dimension 3 of this study with the items under affective commitment in the Gustafsson, Johnson & Roos (2005) study. Three items of this study fit loosely with the items on the affective commitment dimension in that study.

Based on the above arguments and the comparison with the various studies; it seems that the items of the new dimension of this research study do not fit precisely with those of any other studies, but are similar to the affective commitment dimension and the understanding and caring dimension of other studies. Affective commitment is the emotional relationship

between the consumer and the retailer, which is different from calculative commitment, which is the need to keep a relationship with the retailer for reasons such as economic reasons (Davis-Sramek *et al.*, 2009). Based on the previous discussion the new dimension will be named “caring and commitment” because the items under this new dimension are not an exact fit with any existing dimension.

Table 4.10: Dimension 3 (part1)

New dimension (this study)	understanding and caring (Akbaba, 2006)
There is a warm relationship between employees of Al Waha and customers	Treating guests in a friendly manner
I feel good when I receive good services from employees of Al Waha	Individualized attention
Employees of Al Waha give equal treatment to all customers	Understanding the specific needs of guests
The well-being of Al Waha employees is important to me	
	Flexibility in services
	Providing assistance in other required areas

Table 4.11: Dimension 3 (part2)

New dimension (this study)	Affective commitment (Davis-Sramek, 2009)
There is a warm relationship between employees of Al Waha and customers	I have developed a closer business relationship with XYZ
I feel good when I receive good services from employees of Al Waha	I really like doing business with XYZ, better than other home appliance

	manufacturers.
Employees of Al Waha give equal treatment to all customers	
The well-being of Al Waha employees is important to me	I want to remain a customer of XYZ more than other home appliance manufacturers because we enjoy our relationship with them.
	I am willing to put in more effort to purchase products from XYZ than other home appliance suppliers.

Table 4.12: Dimension 3 (part3)

New dimension (this study)	Affective commitment (Fullerton, 2005)
There is a warm relationship between employees of Al Waha and customers	I feel a strong sense of identification with X
I feel good when I receive good services from employees of Al Waha	X has a great deal of personal meaning for me
Employees of Al Waha give equal treatment to all customers	
The well-being of Al Waha employees is important to me	I feel emotionally attached to X

Table 4.13: Dimension 3 (part4)

New dimension (this study)	Affective attitude (Baumann <i>et al.</i> , 2007)
There is a warm relationship between employees of Al Waha and customers	I enjoy visiting my bank
I feel good when I receive good services from employees of Al Waha	I feel good about the bank
Employees of Al Waha give equal treatment to all customers	
The well-being of Al Waha employees is important to me	I have a sense of belonging to my bank
	I like my bank

Table 4.14: Dimension 3 (part5)

New dimension (this study)	Affective commitment (Gustafsson, Johnson & Roos, 2005)
There is a warm relationship between employees of Al Waha and customers	There is a presence of reciprocity in my relationship with the company
I feel good when I receive good services from employees of Al Waha	I take pleasure in being a customer of the company
Employees of Al Waha give equal treatment to all customers	The company is the operator that takes the best care of their customers
The well-being of Al Waha employees is important to me	I have feelings of trust toward the company

Dimension 4

A comparison of the items under Dimension 4 of this study (presented in the **Table 4.15** below) with the original RSQS scale reveals that two of the three items in this dimension are the same as two items in the policy dimension in the original RSQS study. Therefore, Dimension 4 in this study will be called the policy dimension.

Table 4.15: Dimension 4

Factor 4 (this study)	Policy
	This store offers high quality merchandise
	This store provides plenty of convenient parking for customers
	This store has operating hours convenient for all its customers
Al Waha should accept most major credit cards	This store accepts most major credit cards
Al Waha should offer its own credit cards	This store offer its own credit cards
Al Waha's policies on returns are clearly laid out	

The 22-item scale here named the Al Waha service quality scale (ASQS) falls under four dimensions: interaction quality (problem solving, personal interaction and reliability), physical aspects, caring and commitment, and policy. The number of dimensions in a service quality scale depends on the context of the service being measured and the evaluation process (Prayag, 2007). A study of a chain of supermarkets in Spain resulted in four dimensions; physical aspects, reliability, personal interaction and policies (Vazquez *et al.*, 2001). Another study that measured service quality in banks in Turkey resulted in four factors; service environment, interaction quality, empathy and reliability (Karatepe, Yavas & Babakus, 2005). Another study on banks in the UAE by Jabnoun & Khalifa (2005) resulted in four factors: reliability, personal skills, value and image. The ASQS items are presented in **Table 4.16** below.

Al Waha service quality scale (ASQS) items are presented in **table 4.16** below. The first column shows the dimension followed by the items under that dimension. The second column shows under which dimension the items came from on the original RSQS scale.

Table 4.16: Dimensions of this study compared with RSQS dimensions

Dimensions of this study	Dimensions on the original RSQS
Dimension 1 (interaction quality)	
Employees in Al Waha are able to solve customers' problems immediately	Problem solving
Customers can easily identify Al Waha employees	Problem solving
Employees in Al Waha tell customers exactly when services will be performed	Personal interaction
When a customer has a problem, Al Waha makes an effort in solving it	Problem solving
Al Waha gives customers individual attention	Personal interaction
Employees in Al Waha give fast services to customers	Personal interaction
Al Waha has product available when the customers want it	Reliability
Al Waha performs the services right the first time	Reliability
Employees in Al Waha are never too busy to respond to customer's request	Personal interaction
Dimension 2 (Physical aspects)	
The inside of Al Waha is neat	Physical aspects
Al Waha layout makes it easy for customers to find what they need	Physical aspects
Al Waha layout makes it easy for customers to move around in the store	Physical aspects

Al Waha store has a modern look	Physical aspects
Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing	Physical aspects
When Al Waha promises to do something by a certain time, it will do so	Reliability
Dimension 3 (Caring and commitment)	
There is a warm relationship between employees of Al Waha and customers	
I feel good when I receive good services from employees of Al Waha	
Employees of Al Waha give equal treatment to all customers	
The well-being of Al Waha employees is important to me	
Dimension 4 (Policy)	
Al Waha should offer its own credit cards	Policy
Al Waha should accept most major credit cards	Policy
Al Waha's policies on returns are clearly laid out	

4.8 Conclusion

This chapter presents results of phase one of the study. The customers of the shop are unique; most of the customers are single young Arab Female students under 20 years old. The majority of the sample consists of diploma students and around 45% of the customers had a monthly family income above 20,000 AED (£3,300). A total of 350 questionnaires were given to customers but only 303 usable ones were returned. The response rate was very high, at around 87%. Every third customer was approached for phase one of the study to answer the questionnaire, but not all customers agreed to take part in the survey.

The main purpose of the phase one of the study was to test the modified RSQS scale to make sure it is appropriate for conducting the analysis for the main study. Phase one of the study resulted in a modified scale called Al the Waha Service Quality Scale (ASQS) which featured a new 22-item scale comprised of four dimensions. Based on an extensive literature review of the service quality literature; Dimension 1 was called interaction quality, Dimension 2 was called physical aspects, Dimension 3 caring and commitment and Dimension 4 policy. There are a few differences between the dimensions of this study and the dimensions of the original RSQS as follows:

- Dimension 1 (interaction quality) of this study is a combination of the reliability, personal interaction and problem solving dimensions of the RSQS scale.
- Dimension 2 (physical aspects) is similar to the physical aspects dimension on the original RSQS scale.
- Dimension 3 (caring and commitment) is a new dimension and is not similar to any specific dimension on the RSQS scale.
- Dimension 4 (policy) of this study is similar to the policy dimension on the original RSQS scale.

There were 9 items under Dimension 1 of this study; two were from the reliability dimension on the original RSQS scale, four were from the personal interaction dimension on the original RSQS scale and 3 were from the problem solving dimension of the original RSQS scale. This makes this dimension unique to this study because it combines three different dimensions from the original RSQS scale. There were six items under Dimension 2; five of the items were from the physical aspects dimension of the original RSQS dimension and one was from the reliability dimension on the original RSQS scale. There were four items under Dimension 3 which were not similar to any of the items under the

RSQS dimensions. There were three items under Dimension 4, and two of these items were from the policy dimension on the original RSQS scale.

The caring and commitment dimension is a unique dimension that consists of the following items:

- There is a warm relationship between employees of Al Waha and customers
- I feel good when I receive good services from employees of Al Waha
- Employees of Al Waha give equal treatment to all customers
- The well-being of Al Waha employees is important to me

The revised dimensions emphasize that service quality is unique in Al Waha shop, which is a reflection of the culture of Dubai, United Arab Emirates. The interaction quality dimension and caring and commitment dimension are unique to this study. The caring and commitment dimension is about relationships and being treated equally and this shows that customers value the personal relationship with employees of Al Waha. These results are not a complete surprise since the United Arab Emirates is considered a collectivist society, and as such tends to emphasize group values over individual values.

Chapter 5

Data Analysis and Discussions

Chapter 5: Data Analysis and Discussions

5.0 Introduction

The purpose of this chapter is to explore the relationship between the ASQS dimensions and overall service quality, satisfaction, loyalty and frequency of visits. The chapter will also discuss the relationship between the ASQS dimensions and demographics. The ASQS is retested for its suitability and usability for the college shop. The data is analyzed under the objectives of the study, which were first, to modify the RSQS to be more suitable for the Al Waha shop and second, to test the hypotheses to find the relationships between the ASQS dimensions and overall service quality, satisfaction, loyalty and frequency of visits. Third, to find the differences between service quality dimensions by demographic information.

The findings of phase one of the study show that there is a dimension that is unique to the college shop. This dimension is explored further by testing its relationship with overall service quality, satisfaction, loyalty and frequency of visits. This chapter includes detailed information on the data collected from the Al Waha shop and the outcome of the data analysis. The data was analyzed, interpreted, and the methods used in the interpretations are discussed as well as the outcomes.

This chapter starts with demographic information so as to give the reader a picture of the breakdown of the sample being studied. The demographics explored are age, gender, marital status, education level and family income. This discussion is followed by a factor analysis which is repeated for the main study to confirm the results from phase one of the study. The reliability test is repeated for the main study to further confirm the suitability of the scale. This is followed by hypothesis testing to ascertain the associations between ASQS dimensions and overall service quality, satisfaction, loyalty, frequency of visits and demographics. The chapter concludes with a summary of all the relationships that were tested and found to be positive.

5.1 General demographic information for the main study

Al Waha Service Quality scale (ASQS) was given to customers that visited Al Waha, see **Appendix 5** for ASQS scale. In total, 500 questionnaires were distributed and 424 completed questionnaires were used for this study. The demographics of the sample were used to test the relationships with the ASQS dimensions and to gain a better understanding

of the sample under investigation. The descriptive statistics that were used in this study reflect the demographic characteristics of the studied sample. The results are presented below and summarized in **Table 5.1**:

Table 5.1: General Demographic information

Category	Frequency	Valid Percent
Age		
15-20	299	72.4%
21-26	108	26.2%
Other	6	1.5%
Gender		
Female	421	99.3%
Male	3	0.7%
Marital status		
Single	368	87.2%
Married	45	10.7%
Other	9	2.1%
Education level		
Diploma	255	60.4%
Higher Diploma	78	18.4%
Bachelor degree	81	19.2%
Other	8	1.9%
Monthly Family income		
Below 10,000 AED	72	19.3%

10,000-20,000	146	39.1%
20,000-30,000	60	16.1%
Above 30,000 AED	95	25.5%

The main demographic information of respondents is summarized below:

- The majority of the students (98.6%) are 26 years old or younger
- The majority of the sample is female, around 99%
- The majority of the sample are single, around 87%
- Around 60% of the sample are diploma students
- Around 42% had a monthly family income above 20,000 AED

5.2 Exploratory factor analysis for the main study

As discussed in the Methodology chapter and Phase one of the study chapter, the ASQS was modified from the RSQS scale to be more appropriate for the retail shop context in the Dubai Women's College. It was felt to be important to purify the scale again to make sure that the dimensions for the main study were similar to the dimensions derived from phase one of the study. To purify the scale, a factor analysis was conducted for the main study to verify the construct validity of the scale. A principal component was performed on the scale using a Varimax rotation that shows the factor loadings for the scale.

The 22-item scale was subjected to principal component using SPSS version 17, a process which resulted in the same 4 dimensions found in the pilot test. To be able to use factor analysis for the current study, the KMO measure of sampling adequacy and Barrlett's test were first performed. **Table 5.2** shows the KMO measure of sampling adequacy for this study; 0.937, which is well above the minimal value of 0.6. The Barrlett's test of sphericity was 0.000, which is significant at the 0.01 level, which indicates that factor analysis could be performed on this study and that the scale is usable.

Table 5.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.937
Bartlett's Test of Sphericity	.000

The four dimensions which are the result of factor analysis are interaction quality, physical aspects, caring and commitment and policy dimensions. The results are presented in **Table 5.3** below. **Table 5.3** shows the aggregate total for these four dimensions is 57.626%, which means that these four dimensions account for 57.626% of the variation. The factor analysis for each of the dimensions is as follows:

Dimension 1 (interaction quality) alone accounted for 40.421% of the variation in the modified scale. Dimension 2 (Physical aspects) accounts for 6.853% of the variance in the modified scale. Dimension 3 (caring and commitment) accounts for 5.309% of the variance in the modified scale. Dimension 4 (Policy) accounts for 5.043% of the variance in the modified scale.

Table 5.3: Total Variance Explained

Component	Initial Eigenvalue			Extraction Sums of Squared Loadings			Rotation sums of squared loading		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	8.893	40.421	40.421	8.893	40.421	40.421	4.248	19.311	19.311
2	1.508	6.853	47.273	1.508	6.853	47.273	3.651	16.597	35.909
3	1.168	5.309	52.583	1.168	5.309	52.583	2.812	12.780	48.688
4	1.109	5.043	57.626	1.109	5.043	57.626	1.966	8.937	57.626

Extraction method: Principal Component Analysis

The rotated component matrix shows the grouping of the items under each factor. Moreover, the validity of the modified questionnaire (22 items) was measured using factor loadings for each item on the questionnaire. **Table 5.4** shows that the factor loading for each item on the questionnaire is above the recommended minimum value of 0.5.

Table 5.4: Rotated component analysis

Item	Component			
	1	2	3	4
Employees in Al Waha are able to solve customers' problems immediately	.692			
Customers can easily identify Al Waha employees	.626			
Employees in Al Waha tell customers exactly when services will be performed	.609			
When a customer has a problem, Al Waha makes an effort in solving it	.592			
Al Waha gives customers individual attention	.574			
Employees in Al Waha give fast services to customers	.551			
Al Waha has product available when the customers want it	.546			
Al Waha performs the services right the first time	.531			
Employees in Al Waha are never too busy to respond to customer's request	.510			
The inside of Al Waha is neat		.692		
Al Waha layout makes it easy for customers to find what they need		.626		
Al Waha layout makes it easy for customers to move around in the store		.609		
Al Waha store has a modern look		.592		

Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing		.574		
When Al Waha promises to do something by a certain time, it will do so		.511		
There is a warm relationship between employees of Al Waha and customers			.746	
I feel good when I receive good services from employees of Al Waha			.737	
Employees of Al Waha give equal treatment to all customers			.670	
The well-being of Al Waha employees is important to me			.549	
Al Waha should offer its own credit cards				.791
Al Waha should accept most major credit cards				.726
Al Waha's policies on returns are clearly laid out				.616

Extraction method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

Rotation converged in 18 iterations

The item loading ranged from 0.511 to 0.791 under four dimensions; this confirms the four dimensions for the main study, which are the same dimensions found in phase one of the study. It can be concluded that it was appropriate to maintain the four dimensions for the ASQS.

5.3 Reliability evaluation of the scale for the main study

The analysis showed that the reliability of the scale was high, which indicates that the scale is suitable for measuring retail service quality in the college shop. The modified 22-item scale has a high reliability, with a Cronbach's alpha coefficient of 0.930. The reliability for each of the 22 items under the Column Cronbach's alpha if the item were deleted is between 0.925 to 0.929, which is below the overall reliability of 0.930, meaning that if the

items were deleted the overall reliability of the scale would not increase. The high reliability of the scale is an indication that the scale is suitable for the college shop, especially given that all the items on the modified scale ranged between 0.925 and 0.929. Furthermore, the reliability test was performed for each dimension separately with the results presented in **Table 5.5** below and detailed as follows:

- Dimension1 (interaction quality) has a Cronbach's alpha coefficient of 0.871, which suggests very high internal consistency. All the items under that factor have 'Cronbach's alpha if item deleted' ranges between 0.853 to 0.865, which is below the overall reliability for that factor, meaning that removal of any of the items under this factor would not increase the overall reliability of that factor. Similarly:
- Dimension 2 (Physical aspects) has a Cronbach's alpha coefficient of 0.843, and all the items under that factor have 'Cronbach's alpha if item deleted' ranging from 0.799 to 0.831.
- Dimension 3 (caring and commitment) has a Cronbach's alpha coefficient of 0.821 and all the items under that factor have a 'Cronbach's alpha if item deleted' ranging from 0.758 to 0.818.
- Dimension 4 (Policy) has a Cronbach's alpha coefficient of 0.814 and all the items under that factor have a 'Cronbach's alpha if item deleted' ranging from 0.733 to 0.783.

The values for each item in the Correlated item-Total correlation column range between 0.416 and 0.696 which is well above the minimal value of 0.3. All dimensions have an alpha value higher than the recommended minimal value of 0.7; the lowest alpha value is 0.814 which is for the policy dimension.

Table 5.5: Reliability for Al Waha Service Quality Scale dimensions

The reliability for Dimensions	Cronbach's Alpha	No of Items
Al Waha service quality scale dimensions	.930	22
Dimension 1	.871	9
Dimension 2	.843	6
Dimension 3	.821	4
Dimension 4	.814	3

Table 5.5 above shows that the highest reliability is for Dimension 1 at 0.871 followed by Dimension 2 at 0.843, then Dimension 3 at 0.821, and finally Dimension 4 at 0.814. This indicates that the internal consistency of the measure is good, above the minimal value of 0.7.

5.4 Descriptive analysis of Al Waha Service Quality Scale

The descriptive statistics were done after the scale was purified as regards the responses to each item measured on a five point scale (1= *strongly disagree*, 2= *disagree*, 3= *neither agree nor disagree*, 4= *agree*, 5= *strongly agree*) . The responses to the items are shown below under each dimension.

5.4.1 Dimension 1: Interaction quality

This dimension is a combination of the reliability dimension, personal interaction and problem solving on the original RSQS scale; it consists of nine items. As can be seen in **Table 5.6** below, most of the respondents reported that the service was very good. The vast majority of the respondents had a positive perception of service quality at Al Waha, ranging from 63.6% to 78.9% who either strongly agreed or agreed with all the statements under Dimension 1. The strongest agreement was with the statement ‘Employees in Al Waha give fast service to customers’ and the weakest agreement was with the statement ‘Al Waha has the product available when the customers want it’.

Table 5.6: Customer’s perceptions towards Dimension 1 (interaction quality)

Statement	SA	A	N	D	SD
Employees in Al Waha are able to solve customers’ problems immediately	30%	37.8%	23.9%	6.6%	1.7%
Customers can easily identify Al Waha employees	33.6%	34.4%	16.8%	9.2%	5.9%
Employees in Al Waha tell customers exactly when services will be performed	29.9%	39.9%	22.6%	5.7%	1.9%
When a customer has a problem, Al Waha makes an effort in solving it	31.8%	33.2%	28.4%	5.5%	1.2%
Al Waha gives customers individual attention	31.7%	43.1%	19.3%	4.5%	1.4%
Employees in Al Waha give fast services to customers	35.5%	43.4%	13.3%	5.9%	1.9%
Al Waha has product available when the customers want it	23.3%	40.3%	22.6%	8%	5.7%
Al Waha performs the services right the first time	33.5%	37.7%	21.9%	4.7%	2.1%
Employees in Al Waha are never too busy to respond to customer’s request	31.2%	40.4%	18.4%	6.4%	3.5%

5.4.2 Dimension 2: Physical aspects

This dimension is almost the same as physical aspects on the original RSQS scale; it consists of six items. As can be seen in **Table 5.7** below most of the respondents reported favorable views under this dimension. The vast majority of the respondents had a positive perception of the physical aspects dimension at Al Waha, ranging from 65.8% to 81.3% who strongly agreed or agreed with all the statements in this dimension. The strongest agreement was with the statements ‘The inside of Al Waha is neat’ and ‘Al Waha layout makes it easy for customers to move around in the store’, while the weakest agreement was with the statement ‘When Al Waha promises to do something by a certain time, it will do so’.

Table 5.7: Customer’s perceptions towards Dimension 2 (physical aspects)

Statement	SA	A	N	D	SD
The inside of Al Waha is neat	37.9%	43.4%	9.7%	6.6%	2.4%
Al Waha layout makes it easy for customers to find what they need	32.7%	43.4%	14%	8.1%	1.9%
Al Waha layout makes it easy for customers to move around in the store	35.2%	46.1%	10.4%	7.3%	.9%
Al Waha store has a modern look	30%	44.3%	16%	6.7%	3.1%
Materials associated with Al Waha’s services (such as shopping bags, catalogues or statements) are visually appealing	26.5%	48%	16.1%	6.4%	3.1%
When Al Waha promises to do something by a certain time, it will do so	26.8%	39%	28%	4%	2.1%

5.4.3 Dimension 3: Caring and commitment

This new dimension, which consists of four items is not similar to any dimensions on the original RSQS scale. As can be seen in **Table 5.8** below, most respondents reported excellent reactions under this dimension, with the vast majority reporting a positive perception of the caring and commitment dimension ranging from 76.1% to 82.5% who strongly agreed or agreed with the statements under this dimension. The strongest agreement was with the statement ‘I feel good when I receive good service from

employees of Al Waha’ and the weakest agreement was with the statement ‘Employees of Al Waha give equal treatment to all customers’.

Table 5.8: Customer’s perceptions towards Dimension 2 (caring and commitment)

Statement	SA	A	N	D	SD
There is a warm relationship between employees of Al Waha and customers	42.9%	37.5%	14.6%	3.3%	1.7%
I feel good when I receive good services from employees of Al Waha	41.6%	40.9%	9.9%	5.2%	2.4%
Employees of Al Waha give equal treatment to all customers	38.1%	41.4%	14.2%	4.5%	1.9%
The well-being of Al Waha employees is important to me	35.2%	40.9%	16.8%	4.5%	2.6%

5.4.4 Dimension four: Policy

This new dimension is similar to the policy dimension on the original RSQS scale; it consists of three items. As can be seen in **Table 5.9** below, most of the respondents reported that new services should be added, such as credit card acceptance. The vast majority of the respondents reported agreement with the proposition that Al Waha should accept credit cards. The highest agreement, in fact, was with the suggestion that Al Waha should accept all major credit cards, with 76% who strongly agreed or agreed with this statement. Also, 67.3% reported agreement that Al Waha should offer its own credit cards. The last statement, ‘Al Waha’s policies on returns are clearly laid out’, had 68% of respondents who strongly agreed or agreed.

Table 5.9: Customer’s perceptions of Dimension 2 (Policy)

Statement	SA	A	N	D	SD
Al Waha should offer its own credit cards	34%	33.3%	22.1%	6.9%	3.8%
Al Waha should accept most major credit cards	37.4%	38.6%	17.1%	3.8%	3.1%
Al Waha’s policies on returns are clearly laid out	30.6%	37.4%	20.1%	5.9%	5.9%

5.5 The mean score for Al Waha service quality scale dimensions

The mean score is computed to confirm the results of the responses given by the respondents to each item under the different dimensions. These descriptive statistics provide information about the mean and standard deviation for each item on ASQS; see **Appendix 6** for full details. Also, the analysis was used to show the mean and standard deviation for each of the four dimensions on ASQS. These measures give an indication of the level of retail service quality as perceived by Al Waha customers for each item and each of the four dimensions. Mean values show the level of satisfaction customers reported for the different dimensions (Al-Tamimi & Al-Amiri, 2003). The mean and standard deviations have been used in such studies as Al-Tamimi & Al-Amiri (2003) and (Wong & Sohal, 2003).

The mean was used to give an indication of the average response for each dimension and the standard deviation was used to show the level of spread of the data (Zikmund, 2003). **Table 5.10** below shows the mean and standard deviation for each of the four dimensions. The average response on the five-point Likert scale for all items was 3.96, with a standard deviation of 0.988. This mean indicates that the Al Waha customers had an above average perception of service quality at the shop. The standard deviation suggests that the perception of service quality is consistently above average given that most of the responses were 1 point away from the mean.

The highest average was for Dimension 3 (caring and commitment) with a mean of 4.10 and a standard deviation of 0.76. Dimension 2 (Physical aspects) had the second highest mean, 3.96 and a standard deviation of 0.72. Dimension 3 (Policy) had the third highest mean at 3.90 and a standard deviation of 0.84. Dimension 1 (interaction quality) had the lowest mean at 3.89 and a standard deviation of 0.70. The highest mean score was for caring and commitment, which implies that customers are happy with the personal relationship with Al Waha employees. Customers may feel good that they are being served by UAE national employees rather than by people of other nationalities as is frequently the case.

The overall service quality had a mean of 4.2 and a standard deviation of 0.87 which again is an indication that the perceived service quality on the part of Al Waha customers is well above average. The overall satisfaction had a mean of 4.10 and a standard deviation of 0.88, which again is an indication that the level of satisfaction with Al Waha services is

above average. The overall loyalty with Al Waha services had a mean of 4.14 and a standard deviation of 0.85 which again is an indication that the level of satisfaction with Al Waha services is above average.

Interestingly, the highest mean score for all statements was for ‘There is a warm relationship between employees of Al Waha and customers’, which is part of the caring and commitment dimension. Again, this implies that customers reported a favorable feeling regarding a close relationship with Al Waha employees. **Table 5.10** below clearly shows that the highest score was for the caring and commitment dimension followed by 'physical aspects' and then 'policy' and finally 'interaction quality'. This study's results are similar to those of a study about Islamic banks in the UAE (Al-Tamimi & Al-Amiri, 2003) which found empathy (similar to caring and commitment) and tangibles (similar to physical aspects) to have the highest mean scores. The same study found reliability, responsiveness and assurance (similar to interaction quality) to have the lowest score.

A service quality study in UAE higher education institutions found that empathy and tangibles had the lowest scores (Badri, Abdulla & Al-Madani, 2005). This is contrary to the findings of the Al-Waha study in which 'physical aspects', similar to tangibles, had the second highest score. The study on the UAE institutions found reliability, responsiveness and assurance to have the highest scores, which is the opposite finding of this study, because reliability is part of the interaction quality dimension which had the lowest score in this study. A study of retail banks in Northern Cyprus by Karatepe, Yavas & Babakus (2005) ranked interaction quality (interaction quality) as number one, followed by empathy (caring and commitment), followed by reliability and finally by interaction quality (physical aspects). These results closely mirror those of the Al-Waha study in terms of the number and type of dimensions.

Table 5.10: Mean and standard deviation for all dimensions of Al Waha service quality scale

Dimension	Mean	S.D
Dimension 3 (Caring and commitment)	4.10	0.76
Dimension 2 (Physical aspects)	3.96	0.72
Dimension 4 (Policy)	3.90	0.84
Dimension 1 (Reliability + Problem solving + Personal interaction)	3.89	0.70
Overall, how would you rate the quality of service you received in Al Waha?	4.21	0.87

How likely is it that you would recommend Al Waha to a friend or colleague?	4.14	0.88
Overall, how satisfied are you with Al Waha services?	4.10	0.85
How often do you visit Al Waha?	3.18	1.20

5.6 Hypotheses testing for the research

The ASQS was administered to test the influence of the dependent variable, which is overall service quality, loyalty, satisfaction and frequency of visits, on the independent variables, which are interaction quality, physical aspects, caring and commitment and policy. To ascertain the link between the dependent variable and the independent variables a multiple regression analysis was conducted for the first three dependent variables. A correlation analysis was conducted to test the correlation between the frequency of visits and the independent variables. A Kruskal-Wallis test was performed to examine the difference in the score values of the ASQS dimensions by age, education level, marital status and income level. A Mann-Whitney U test was performed to find the difference in the score values of the ASQS dimensions by customer gender.

5.6.1 Multiple Regression Analysis, Correlation, Kruskal-Wallis and Mann-Whitney U test

Multiple regression analysis is a technique that tests the relationship between the dependent variable and the independent variables. The dependent variables in this study were overall service quality, loyalty, satisfaction and frequency of visits. The independent variables were the ASQS dimensions of interaction quality, physical aspects, caring and commitment, and policy.

The significance level used in this study is 5%, which is common among similar studies. The hypotheses were divided into sub-hypotheses to determine the effect of each dimension on overall service quality, loyalty, satisfaction and frequency of visits. To determine whether the dependent variable was influenced by the independent variable, a multiple regression analysis was performed, with results presented under each hypothesis.

Furthermore, to test the relationship between the frequency of visits and the ASQS dimensions a Pearson correlation was performed.

As discussed in the Literature Review chapter, many studies have tested the relationship between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits. For example Al Tamimi & Al-Amiri (2003) found a positive relationship between service quality dimensions and overall service quality. They also found a difference in service quality based on age, education and number of years banking with the same bank. Jamal & Anastasiadou (2009) found that reliability, tangibility and empathy had a positive relationship with satisfaction. They also found a positive relationship between satisfaction and loyalty which suggests that reliability, tangibility and empathy has a positive relationship with loyalty.

To make sure none of the multiple regression analysis assumptions were violated, all the assumptions were checked as follows:

- Sample size: Sample size must be $N \geq 50 + 8 * m$, where m is the number of independent variables. The sample size is 424 which is larger than 82 ($50 + 8 * 4 = 82$). This assumption has not been violated.
- Multicollinearity: to test multicollinearity the tolerance level must be greater than .10 and the VIF must be less than 10. The results of the tolerance and VIF are presented in Table 5.11 below. As can be seen in **Table 5.11** all of the values of the tolerance are above .10 and all the values of the VIF are less than 10. Additionally, the correlation between the independent variables should not be equal or higher than 0.90. Finally, there should be some correlations between the dependent variable and the independent variables (Pallant, 2007). A full list of the correlations tables can be found in **Appendix 7**.
- Outliers: To test for outliers the Cook's distance is less than 1 and the Mahalanobis distance must be less than 18.47. As can be seen in **table 5.11** none of the Cook's values were above 1 and all the Mahalanobis distance were less than 18.47, which means that the assumption hasn't been violated.

The multicollinearity and outlier assumption for each dependent variable is presented in **Table 5.11** below. Column 1 shows the name of the assumption, column 2 shows the test performed to test the assumption, column three shows the acceptable range of the test value or the value the test must fall above or below. The last column shows if the assumption was violated or not.

Table 5.11: Regression analysis assumptions

Assumption		Test		Range	Violated
Multicollinearity		VIF	Tolerance	VIF<10 Tolerance > 0.10	No
Dependent variable overall service quality					
	Dimension 1	2.82	0.354		No
	Dimension 2	1.96	0.509		No
	Dimension 3	2.06	0.484		No
	Dimension 4	1.51	0.663		No
Outlier		Cook's	Mahalanobis	Cook's Distance < 1 Mahalanobis Distance < 18.47	No
Dependent variable overall service quality		Distance	Distance		
		0.00000- 0.9390	0.07480- 17.99507		No
Multicollinearity		VIF	Tolerance	VIF<10 Tolerance > 0.10	No
Dependent variable satisfaction					
	Dimension 1	2.82	0.354		No
	Dimension 2	1.96	0.509		No
	Dimension 3	2.06	0.484		No
	Dimension 4	1.51	0.663		No
Outlier		Cook's	Mahalanobis	Cook's Distance < 1 Mahalanobis Distance < 18.47	No
Dependent variable satisfaction		Distance	Distance		
		0.00000- 0.15896	0.07480- 17.99507		No
Multicollinearity		VIF	Tolerance	VIF<10 Tolerance > 0.10	No
Dependent variable loyalty					

	Dimension 1	2.82	0.354		No
	Dimension 2	1.96	0.509		No
	Dimension 3	2.06	0.484		No
	Dimension 4	1.51	0.663		No
Outlier	Dependent variable loyalty	Cook's	Mahalanobis	Cook's Distance < 1	No
		Distance	Distance	Mahalanobis Distance < 18.47	
		0.00000- 0.14043	0.07480- 17.99507		No

As can be seen in **Table 5.11** above, the tolerance value and the VIF for all the independent dimensions falls within the acceptable range when the dependent variable is overall service quality, which means that the second assumption has not been violated. The same is true when the dependent variable is satisfaction, loyalty, overall service quality. Similarly, all Cook's Distance values are less than 1 and the Mahalanobis Distances are less than 18.47 for all dependent variables, so the third assumption has not been violated. The regression analysis equation and a full test of the regression analysis using the enter method can be found in **Appendix 7**.

Hypothesis 1

The modified service quality dimensions have a positive association with overall service quality.

Hypothesis 1-1: The interaction quality dimension has a positive association with overall service quality

Hypothesis 1-2: The physical aspects dimension has a positive association with overall service quality

Hypothesis 1-3: The caring and commitment dimension has a positive association with overall service quality

Hypothesis 1-4: The policy dimension has a positive association with overall service quality

A stepwise multiple regression analysis was performed to test the relationship between the dependent variable, perceived overall service quality, on the independent variables, interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 5.12** and are as follows:

Table 5.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403 ^a	.163	.161	.795
2	.418 ^b	.174	.170	.790

- a. Predictors: (Constant), Dimension1
b. Predictors: (Constant), Dimension1, Dimension2
c. Dependent Variable: overall quality

Table 5.13: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.260	.219		10.327	.000
	Dimension 1	.501	.055	.403	9.043	.000
2	(Constant)	2.041	.235		8.668	.000
	Dimension 1	.374	.076	.301	4.939	.000
	Dimension 2	.180	.074	.149	2.435	.015

- a. Dependent Variable: overall quality
- The R square (coefficient of determination) value is 0.170 which means that ASQS dimensions (Dimensions 1 and 2 only) account for 17.0% of the variance in the overall service quality. This value is low, which means that there is 83% of perceived overall service quality which is explained by something other than the dimensions.
 - The statistical findings show that Dimension 1(interaction quality) and Dimension 2 (physical aspects) are the only two that are significant predictors of overall service quality.
 - The strongest relationship was between the interaction quality dimension and overall service quality, with a Beta value for dimension 1 higher than the Beta value for Dimension 2.
 - Model 1 in table 5.12 shows that only the interaction quality (Dimension 1) was included in the regression analysis and model 2 means that interaction quality (Dimension 1) and physical aspects (dimension 2) were entered in the regression analysis computation. It is important to understand that the regression model computes the R square twice, the first time using one dimension and the second time using all dimensions.

The outcome of Hypothesis 1-1 was that 'interaction quality' does indeed have a positive relationship with overall service quality. The multiple regression analysis showed 'interaction quality' to be significant at the 0.000 level, which is lower than the 0.05 confidence level of this study. This finding contradicts those reported by Al-Tamimi & Al Amiri (2003) who found that reliability (part of the interaction quality dimension in this research study) does not have a positive relationship on overall service quality. However, it is consistent with the findings reported by Jabnoun & Khalifa (2005) who found personal skills (similar to 'interaction quality') to have a positive relationship with overall service quality. Another study by (Mehta, Lalwani & Han, 2000) also found that personal interaction contributed significantly to perceived overall service quality.

The outcome of Hypothesis 1-2 was that the physical aspects dimension had a positive relationship with overall service quality, based on the results of the multiple regression analysis which showed physical aspects to be significant at the 0.015 level, which is lower than the 0.05 confidence level for this study. This is consistent with the results reported on UAE Islamic banks (Al-Tamimi & Al-Amiri, 2003) that found tangibles to have a positive relationship with overall service quality. However, it does contradict the findings reported by Jabnoun & Khalifa (2005) who found that image (similar to 'physical aspects') is affected by overall service quality.

Hypothesis 2

The modified service quality dimensions have a positive association with overall satisfaction.

Hypothesis 2-1: The interaction quality dimension has a positive association with overall satisfaction

Hypothesis 2-2: The physical aspects dimension has a positive association with overall satisfaction

Hypothesis 2-3: The caring and commitment dimension has a positive association with overall satisfaction

Hypothesis 2-4: The policy dimension has a positive association with overall satisfaction

A stepwise multiple regression analysis was performed to test the relationship between the dependent variable - satisfaction - on the independent variables - interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 5.14** and are as follows:

Table 5.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.421 ^a	.177	.176	.772
2	.437 ^b	.191	.187	.766

a. Predictors: (Constant), Dimension1

b. Predictors: (Constant), Dimension1, Dimension3

c. Dependent Variable: satisfied

Table 5.15: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.111	.212		9.952	.000
	Dimension 1	.512	.054	.421	9.543	.000
2	(Constant)	1.909	.224		8.516	.000
	Dimension 1	.374	.075	.308	5.007	.000
	Dimension 3	.180	.068	.162	2.637	.009

a. Dependent Variable: satisfied

- The R square (coefficient of determination) value was 0.187 which means that the ASQS dimensions accounted for 18.7% of the variance in satisfaction. Again, about 81% of the variance in satisfaction was due to reasons not related to the service quality dimensions.
- The statistical findings show that Dimension 1(interaction quality) and Dimension 3 (caring and commitment) were the only two that were significant predictors of satisfaction.
- The strongest relationship was between the interaction quality dimension and satisfaction, with the Beta value for Dimension 1 higher than that for Dimension 3.

- Model 1 in table 5.14 shows that only interaction quality (Dimension 1) was included in the regression analysis and model 2 means that interaction quality (Dimension 1) and caring and commitment (dimension 3) were entered in the regression analysis computation.

The outcome of Hypothesis 2-1 was that 'interaction quality' had a positive relationship with 'satisfaction'. The multiple regression analysis showed 'interaction quality' to be significant at the 0.000 level which is lower than the 0.05 confidence level for this study. This is consistent with the findings of Vesel & Zabkar (2009) who reported that personal interaction quality had a positive relationship with satisfaction. Also, this result is consistent with the findings reported by Jamal & Anastasiadou (2009) that reliability, tangibles and empathy had an effect on satisfaction.

The outcome of Hypothesis 2-3 was that caring and commitment dimension had a positive relationship with 'satisfaction'. The multiple regression analysis showed caring and commitment to be significant at the 0.009 level which is lower than the 0.05 confidence level for this study. This result is consistent with the findings reported by Jamal & Anastasiadou (2009) that reliability, tangibles and empathy (close in meaning to caring and commitment) had an effect on satisfaction. As discussed above, caring and commitment is close in meaning to affective commitment, which was found to have a positive relationship with satisfaction in the findings reported by Johnson, Sivadas & Garbarino (2008).

Hypothesis 3

The modified service quality dimensions have a positive association with loyalty to Al Waha.

Hypothesis 3-1: The interaction quality dimension has a positive association with loyalty to Al Waha

Hypothesis 3-2: The physical aspect dimension has a positive association with loyalty to Al Waha

Hypothesis 3-3: The caring and commitment dimension has a positive association with loyalty to Al Waha

Hypothesis 3-4: The policy dimension has a positive association with loyalty to Al Waha

A stepwise multiple regression analysis was performed to test the relationship between the dependent variable, loyalty, on the independent variables, interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 5.16** below:

Table 5.16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.340 ^a	.115	.113	.832
2	.357 ^b	.128	.124	.827

- a. Predictors: (Constant), Dimension1
 b. Predictors: (Constant), Dimension1, Dimension3
 c. Dependent Variable: recommend

Table 5.17: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.473	.229		10.812	.000
	Dimension1	.429	.058	.340	7.420	.000
2	(Constant)	2.271	.242		9.383	.000
	Dimension1	.291	.081	.230	3.610	.000
	Dimension3	.180	.074	.156	2.446	.015

- a. Dependent Variable: recommend

- The R square (coefficient of determination) value were 0.124 which means that Al Waha service quality dimensions accounted for 12.4% only of the variance in loyalty. Again, about 87% of the variance in loyalty was not related to the service quality dimensions.
- The statistical findings show that Dimension 1(interaction quality) and Dimension 3 (caring and commitment) were the only two that were a significant predictor of loyalty.
- The strongest relationship was between the interaction quality dimension and loyalty, with a Beta value for dimension 1 higher than the Beta value for Dimension 3.

- Model 1 in table 5.16 shows that only interaction quality (Dimension 1) was included in the regression analysis and model 2 means that interaction quality (Dimension 1) and caring and commitment (dimension 3) were entered in the regression analysis computation.

The outcome of Hypothesis 3-1 was that ‘interaction quality’ (reliability, personal interaction & problem solving) has a positive relationship with loyalty. The multiple regression analysis showed interaction quality to be significant at the 0.000 level, which is lower than the 0.05 confidence level for this study. This is consistent with the findings of Vesel & Zabkar (2009) who reported that personal interaction quality had a positive relationship with customer loyalty. This contradicts the findings reported by Wong & Sohal (2003) who found that reliability had no positive relationship with loyalty. Also, this result contradicts the findings of Baumann et al. (2007), who found a positive relationship between willingness to recommend and empathy.

The outcome of Hypothesis 3-3 was that the caring and commitment dimension has a positive relationship with loyalty. The multiple regression analysis showed interaction quality to be significant at the 0.015 level, which is lower than the 0.05 confidence level for this study. This result is consistent with the findings reported by Baumann et al. (2007), who found that affective attitude (close in meaning to caring and commitment) was the most important predictor of willingness to recommend.

Hypothesis 4

The modified service quality dimensions are positively correlated with frequency of visits to Al Waha.

Hypothesis 4-1: The interaction quality dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-2: The physical aspect dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-3: The caring and commitment dimension is positively correlated with frequency of visits to Al Waha.

Hypothesis 4-4: The policy dimension is positively correlated with frequency of visits to Al Waha.

The correlation matrix presented in **Table 5.18** below shows that there is a positive correlation between the ASQS dimensions and frequency of visits. The correlation analysis shows the ASQS dimensions are significant at the 0.000 level, which is lower than the 0.05 confidence level for the study. However, the strength of the correlation ranges from 0.195 to 0.295. Based on the guidelines laid out by Burns & Bush (2010); the strength of the correlation between Al Waha service quality dimensions and frequency of visits is very weak. This information is interesting because it suggests that customers visit Al Waha for reasons not related to the service quality dimensions. The customers' visits to the shop could, for instance, be related to its proximity; it is more convenient for them to visit the shop or maybe they walk in with a friend.

Table 5.18: Pearson correlations between the Al Waha service quality dimensions and frequency of visits

		Dimension1	Dimension2	Dimension3	Dimension4
	N	424	424	424	424
Often	Pearson Correlation	.295**	.236**	.237**	.195**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	424	424	424	424

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5.19: Spearman's rho correlations between the Al Waha service quality dimensions and frequency of visits

Spearman's rho			Dimension1	Dimension2	Dimension3	Dimension4
	Often	Correlation Coefficient	.307**	.246**	.271**	.212**
		Sig. (2-tailed)	.000	.000	.000	.000
		N	424	424	424	424

** . Correlation is significant at the 0.01 level (2-tailed).

These results are consistent with those reported in Pakistan (Raajpoot, 2004) that found the more frequent the purchases are, the higher the expectations customers have in terms of the service quality dimensions. These findings are also consistent with the findings reported by Al-Tamimi & Al-Amiri (2003) who found the number of years as a customer had an influence on the perception of service quality.

The table below shows the mean value of the number of visits by Al Waha service quality dimensions. This confirms the results of the correlation analysis that there was a positive relationship between ASQS dimensions and frequency of visits.

Table 5.20: The mean for the number of visits with the Modified RSQS dimensions

		Dimension1	Dimension2	Dimension3	Dimension4
		Mean	Mean	Mean	Mean
often	1	3.48	3.68	3.84	3.75
	2	3.72	3.75	3.89	3.61
	3	3.87	3.94	4.05	3.87
	4	4.04	4.06	4.24	3.89
	5	4.19	4.22	4.40	4.26

Table 5.20 above clearly shows that the frequency of visits depended on the positive perception of ASQS dimensions. The higher the perception of ASQS dimensions the more the customers visited Al Waha.

Hypothesis 5

There is a significant difference in Al Waha service quality scale dimensions by demographic information.

Hypothesis 5-1: There is a significant difference in Al Waha service quality scale dimensions by the customers' age groups.

Hypothesis 5-2: There is a significant difference in Al Waha service quality scale dimensions by customers' gender.

Hypothesis 5-3: There is a significant difference in Al Waha service quality scale dimensions by customers' marital status.

Hypothesis 5-4: There is a significant difference in Al Waha service quality scale dimensions by customers' educational level.

Hypothesis 5-5: There is a significant difference in Al Waha service quality scale dimensions by customers' family income.

To test hypothesis 5-1a Kruskal-Wallis test was performed to examine the difference in the score values of Al Waha service quality scale dimensions across customer's age. The dependent variables in this test were ASQS dimensions and the independent variable was age. The results are shown in Table and are as follows:

Table 5.21: Ranks for the age groups

	Age	N	Mean Rank
Dimension1	15-20	299	201.01
	21-26	108	224.53
	Other	6	190.00
	Total	413	
Dimension2	15-20	299	197.59
	21-26	108	230.72

	Other	6	248.83
	Total	413	
Dimension3	15-20	299	198.77
	21-26	108	232.44
	Other	6	159.25
	Total	413	
Dimension4	15-20	299	202.66
	21-26	108	221.47
	Other	6	162.92
	Total	413	

Table 5.22: Test Statistics for age

	Dimension1	Dimension2	Dimension3	Dimension4
Chi-Square	3.216	6.914	7.457	2.853
df	2	2	2	2
Asymp. Sig.	.200	.032	.024	.240

Kruskal Wallis Test

Grouping Variable: Age

- **Table 5.21** gives an indication if there are differences in the mean ranks between the different age groups. However, the Kruskal Wallis test is the test which confirms if these differences are significant.
- There was no significant difference in the interaction quality dimension scores by customer age as can be seen in **Table 5.22**. The Kruskal-Wallis analysis showed interaction quality was significant at the 0.200 level, which is higher than the 0.05 confidence level for this study; therefore, the null hypothesis is not rejected and it is concluded that there is no difference in the interaction quality dimension scores by customer age.
- There was a significant difference in the physical aspects dimension scores across the age groups. The Kruskal-Wallis analysis showed physical aspects to be significant at the 0.032 level, lower than the 0.05 confidence level for this study; therefore, the null hypothesis is rejected and it is concluded that there was a difference in the physical

aspects dimension scores by customer age. **Table 5.21** shows that customers aged 21-26 had the highest median score as compared to the other two categories. This indicates that the age group 21-26 had the highest physical aspects scores as compared with the age group 15-20 that had the lowest physical aspects scores.

- There was a significant difference in the caring and commitment dimension scores across age groups. The Kruskal-Wallis analysis showed caring and commitment to be significant at the 0.024 level which is lower than the 0.05 confidence level for this study; therefore, the null hypothesis is rejected and it is concluded that there was a difference in the caring and commitment dimension scores by customer age. **Table 5.21** shows that the age group 21-26 had the highest median score as compared to the other two categories. This indicates that the age group 21-26 had the highest caring and commitment scores.
- There was no significant difference in the policy dimension scores by customer age. The Kruskal-Wallis analysis showed interaction quality to be significant at the 0.240 level, which is higher than the 0.05 confidence level for the study; therefore, the null hypothesis is not rejected and it is concluded that there was no difference in the policy dimension scores by customer age.
- The physical aspects dimension and caring and commitment dimension results were consistent with the findings reported by Al-Tamimi & Al-Amiri (2003), who found that all dimensions were significant across age categories except for the reliability dimension. The interaction quality dimension and policy dimension findings contradict findings reported by Al-Tamimi & Al-Amiri (2003).

To test hypothesis 5-2 a Mann-Whitney U test was performed to ascertain the difference in the score values of ASQS dimensions by customer gender. The dependent variables in this test were ASQS dimensions and the independent variable was gender. The results are shown in **Table 5.24** below:

Table 5.23: Ranks for the age groups

	Gender	N	Mean Rank
Dimension1	Female	421	213.02
	Male	3	139.67
	Total	424	
Dimension2	Female	421	212.54
	Male	3	206.67
	Total	424	
Dimension3	Female	421	213.30
	Male	3	100.83
	Total	424	
Dimension4	Female	421	212.78
	Male	3	173.83
	Total	424	

Table 5.24: Test Statistics for gender

	Dimension 1	Dimension 2	Dimension 3	Dimension 4
Mann-Whitney U	413.000	614.000	296.500	515.500
Wilcoxon W	419.000	620.000	302.500	521.500
Z	-1.035	-.083	-1.602	-.554
Asymp. Sig. (2-tailed)	.301	.934	.109	.580

a. Grouping Variable: Gender

Table 5.23 above shows the difference in the mean ranks for male and female by the dimension. However, the Mann-Whitney U test is the test which confirms if there are any significant differences.

The outcome of Hypothesis 5-2 was that there is no significant difference in Al Waha service quality scale dimensions across the customer's gender. This is based on the results of the Mann-Whitney U analysis (**Table 5.24**) that shows Al Waha service quality scale dimensions

are not significant at the 0.05 confidence level for the study; therefore, the null hypothesis is not rejected and it is concluded that there is no difference in scores across customers' gender. This result is consistent with the findings reported by Al-Tamimi & Al-Amiri (2003) who found there are no differences between male and female with regards to service quality dimensions. One must be cautious when looking at these results because the number of male in this sample is only three which means that the results of the Mann-Whitney U test can not be generalized.

To test hypothesis 5-3 a Kruskal-Wallis test was performed to examine the difference in the score values of Al Waha service quality scale dimensions across customers' marital status. The dependent variables in this test were ASQS dimensions and the independent variable was marital status. The results are shown in **Table 5.26**.

Table 5.25: Ranks for marital status

	Marital status	N	Mean Rank
Dimension 1	Single	368	213.69
	Married	45	191.94
	Other	9	219.67
	Total	422	
Dimension 2	Single	368	211.82
	Married	45	200.17
	Other	9	255.06
	Total	422	
Dimension 3	Single	368	209.83
	Married	45	220.36
	Other	9	235.33
	Total	422	
Dimension 4	Single	368	214.01
	Married	45	186.57
	Other	9	233.50
	Total	422	

Table 5.26: Test Statistics for marital status

	Dimension1	Dimension2	Dimension 3	Dimension 4
Chi-Square	1.320	1.551	.664	2.373
df	2	2	2	2
Asymp. Sig.	.517	.461	.717	.305

a. Kruskal Wallis Test

b. Grouping Variable: Marital status

Table 5.25 shows the difference in the mean ranks between the different marital status categories. However, the Kruskal-Wallis test is the test which confirms if there are any significant differences as can be seen in **Table 5.26**.

There was no significant difference in the ASQS dimensions scores by customer marital status. A Kruskal-Wallis analysis showed, the ASQS dimensions were not significant at the 0.05 confidence level for the study; therefore, the null hypothesis is not rejected and it is concluded that there was no difference in the ASQS dimensions scores by customer marital status.

To test hypothesis 5-4 a Kruskal-Wallis test was performed to examine the difference in the score values of ASQS dimensions by customer education level. The dependent variables in this test were ASQS dimensions and the independent variable was education level. The results are shown in **Table 5.28**.

Table 5.27: Ranks for education level

	Educationlevel	N	Mean Rank
Dimension 1	Diploma	255	212.10
	Higher Diploma	78	206.53
	Bachelor Degree	81	215.14
	Other	8	204.19

	Total	422	
Dimension 2	Diploma	255	214.11
	Higher Diploma	78	204.51
	Bachelor Degree	81	209.58
	Other	8	216.00
	Total	422	
Dimension 3	Diploma	255	205.70
	Higher Diploma	78	202.84
	Bachelor Degree	81	238.03
	Other	8	212.13
	Total	422	
	Diploma	255	212.52
Dimension 4	Higher Diploma	78	210.89
	Bachelor Degree	81	210.06
	Other	8	199.69
	Total	422	

Table 5.28: Test Statistics for education level

	Dimension1	Dimension2	Dimension 3	Dimension 4
Chi-Square	.237	.406	4.914	.108
df	3	3	3	3
Asymp. Sig.	.971	.939	.178	.991

a. Kruskal Wallis Test

b. Grouping Variable: Educationlevel

Table 5.27 shows the difference in the mean ranks between the different education level groups. As can be seen in **Table 5.27** there are no big differences in the mean ranks for the different education level groups. However, the Kruskal-Wallis test is the test which confirms if there are any significant differences as can be seen in **Table 5.28**.

There was no significant difference in ASQS dimensions scores by customer educational level. The Mann-Whitney U analysis showed ASQS dimensions were not significant at the 0.05 confidence level for the study; therefore, the null hypothesis is not rejected and it is concluded that there was no difference in ASQS dimensions scores by customer educational level. This contradicts the findings reported by Al-Tamimi & Al-Amiri (2003), who found there were differences in the service quality dimensions based on the education level.

To test Hypothesis 5-5 a Kruskal-Wallis test was performed to examine the difference in the score values of Al Waha service quality scale dimensions across customer's income level. The dependent variables in this test were ASQS dimensions and the independent variable was income level. The results are shown in **Table 5.30**.

Table 5.29: Ranks for family income

	Family income	N	Mean Rank
Dimension 1	Below 10,000	72	163.99
	10,000 - 20,000	146	196.72
	20,000- 30,000	60	171.39
	Above 30,000	95	199.35
	Total	373	
Dimension 2	Below 10,000	72	185.25
	10,000 - 20,000	146	187.11
	20,000-	60	170.79

	30,000		
	Above 30,000	95	198.39
	Total	373	
Dimension 3	Below 10,000	72	171.13
	10,000 - 20,000	146	192.98
	20,000-30,000	60	174.31
	Above 30,000	95	197.86
	Total	373	
	Below 10,000	72	172.75
Dimension 4	10,000 - 20,000	146	196.08
	20,000-30,000	60	162.79
	Above 30,000	95	199.14
	Total	373	

Table 5.30: Test Statistics for family income

	Dimension1	Dimension2	Dimension 3	Dimension 4
Chi-Square	6.992	2.453	3.896	6.647
df	3	3	3	3
Asymp. Sig.	.072	.484	.273	.084

a. Kruskal Wallis Test

b. Grouping Variable: Family income

Table 5.29 shows the difference in the mean ranks between the different family income categories groups. **Table 5.29** shows there are no big differences in the mean ranks for the different income categories. However, the Kruskal-Wallis test is the test which confirms if there are any significant differences as can be seen in **Table 5.30**.

There was no significant difference in ASQS dimensions scores by customer income level. The Mann-Whitney U analysis showed ASQS dimensions were not significant at the 0.05 confidence level for the study; therefore, the null hypothesis is not rejected and it is concluded that there was no difference in ASQS dimensions scores by customer income level.

Table 5.31 and Table 5.32 below summarise the results of the hypotheses testing. Hypotheses 1 to 4 are summarised in Table 5.31 below which shows that overall service quality is associated with interaction quality and physical aspects. Also, it shows satisfaction is associated with interaction quality and caring and commitment dimensions. Loyalty is associated with interaction quality and caring and commitment dimensions. Frequency of visits is positively correlated with all dimensions. However, the strength of correlation between the dimensions and frequency of visits is very weak.

Table 5.32 summarises the results of hypothesis 5 which shows that there are differences in the physical aspects and caring and commitment dimensions by age. There were no differences in the dimensions across gender, marital status, education level and family income.

Table 5.31: The association between the dependent variables and the independent variables

	Dependents			
	Overall service quality	Satisfaction	Loyalty	Frequency of visits
	Multiple regression analysis			Correlation
Dimensions				
Interaction quality	yes	Yes	Yes	Yes
Physical aspects	yes	No	No	Yes
Caring and commitment	No	Yes	Yes	Yes
Policy	No	No	No	Yes

Table 5.32: Kruskal-Wallis and A Mann-Whitney U analysis between service quality dimensions and demographic information

	Age	Gender	Marital status	Educational level	Family income
Dimensions	Kruskall-Wallis	A Mann-Whitney	Kruskall-Wallis	Kruskall-Wallis	Kruskall-Wallis
Interaction quality	No	No	No	No	No
Physical aspects	Yes	No	No	No	No
Caring and commitment	Yes	No	No	No	No
Policy	No	No	No	No	No

5.7 Validity of the scale used in the main study

According to Parasuraman, Zeithaml & Berry (1998) high reliability and internal consistencies are an indication that the scale has trait validity, but for the scale to meet the construct validity condition it must have content validity. The three types of validity are discussed below:

1. Face or content validity is a way of ensuring that the scale is measuring what it is intended to measure; this measurement is more of a qualitative measure rather than a quantitative measure (Parasuraman, Zeithaml & Berry, 1988; Aldlaigan & Buttle, 2002). It involves the steps taken in developing the scale. Since this is a version of the original RSQS scale which has proven validity, then the scale used in this study is also considered to have content validity. Using a performance-only-scale is suggested to give the scale higher reliability and validity. This is sufficient information to determine customers' perceptions of the retail service quality (Caro & Garcia, 2007).
2. Criterion validity or predictive validity is assessed by using correlation analysis between the overall service quality and the service quality dimensions (Jabnoun & Khalifa, 2005; Parasuraman, Zeithaml & Malhotra, 2005; Ladhari, 2009a). **Table 5.32** below shows that all the factors correlate with the overall service quality and this confirms the scales criterion validity.
3. Construct validity: This scale has construct validity because some of the hypotheses of the study were supported, which makes the scale possess construct validity (Parasuraman, Zeithaml & Malhotra, 2005; Caro & Garcia, 2007). Therefore, it is crucial to test the instrument for construct validity before using it in a different country (Cui, Lewis & Park, 2003)

Table 5.32: Correlations between dimensions and overall service quality

		Dimension 1	Dimension 2	Dimension 3	Dimension 4
Often	Pearson Correlation	.295**	.236**	.237**	.195**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	424	424	424	424

**. Correlation is significant at the 0.01 level (2-tailed).

5.9 Conclusion

The purpose of this chapter was to present the general demographics of the main study, to confirm the factor analysis of phase one of the study and to discuss the hypotheses testing and then identify ways to help managers improve service quality. The chapter started by presenting the demographic information of Al Waha customers, who are students at Dubai Women's College. A total of 500 questionnaires were given to customers, with 424 usable ones returned. Every fourth customer was approached to answer the questionnaire but not all customers agreed to take part in the survey. The demographic statistics showed that 96.6 % of the customers were under 26 years old. Most of the customers were women, since the college is a women's college, with the exception of a few programs that are co educational. Most of the customers are single, and the majority are diploma students. About 58% of the customers have a family income of less than 20,000 AED monthly, which is around 3,300 GBP.

Factor analysis was performed twice, once for phase one of the study and once for the main study to make sure that they produced similar results. The results of the factor analysis confirmed the results of phase one of the study which produced four service quality dimensions for this context. Dimension one (interaction quality) accounted for about 40% of the variation in the scale; this dimension alone accounted for more variation than the other three dimensions combined. Dimension two (physical aspects) accounted for 6.85% of the variation in the scale, dimension 3 (caring and commitment) accounted for 5.31% of the variation and dimension four (policy) accounted for 5.04% of the variation in the scale. The

Cronbach's alpha coefficient for the ASQS is 0.930, which is an indication of the high reliability of the scale. Each of the ASQS dimensions had a Cronbach's alpha coefficient of above 0.80. The scale has face, criterion and construct validity; based on the reliability and validity tests, the scale is considered to be suitable for measuring service quality at the Al Waha shop.

The hypotheses tested the relationship between Al Waha service quality dimensions and overall quality, satisfaction and loyalty at the dimension level in a way that has been done in previous studies in other contexts. The relationship between Al Waha service quality dimensions and overall service quality, satisfaction and loyalty were tested using multiple regression analysis and are as follows:

- Overall service quality is positively associated with interaction quality dimension and physical aspects.
- Satisfaction was positively associated with interaction quality and caring and commitment dimension.
- Loyalty was positively associated with interaction quality and caring and commitment dimension.

A correlation analysis was conducted to find the association between the frequency of visits and the ASQS dimensions. It was found that all ASQS dimensions are positively correlated with frequency of visits; however, these correlations are very weak ranging from 0.195 and 0.295 had a very weak correlation with all Al Waha service quality dimensions. All Al Waha service quality dimensions were tested to see if there were any differences across the demographic information. The only differences were found for the physical aspects and caring and commitment dimensions regarding age. Age was positively associated with physical aspects and caring and commitment.

The chapter concluded with recommendations for the managers of Al Waha. Based on the level of challenge that the managers decide on, they can find weak items under each dimension and work on improving service in those areas (refer to **Table 5.33**). For example, if the managers decide that their target for each item is 75% of the respondents to strongly agree or agree with that item and their focus was overall service quality, then they would target statements that fall below the 75% benchmark for Interaction Quality and Physical Aspects

because overall service quality is positively associated with Interaction Quality and Physical Aspects. If managers are targeting satisfied customers, then managers would look at items that fall below the 75% benchmark on the interaction quality and caring and commitment dimensions. If the focus of management is on loyalty then they would be focusing on items that fall below the 75% benchmark under the interaction quality and caring and commitment dimensions.

Chapter 6

Conclusion

Chapter 6: Conclusion

6.0 Introduction

The main purpose of this chapter is to present a summary of the whole work and its practical implications. The chapter begins with an overview of the whole thesis as a reminder of the main points in the research, followed by a recounting of the aims of this study. A discussion of the results of this study and a more in-depth discussion on the caring and commitment dimension that is unique to this study follow. The associations between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits is investigated. Furthermore, the difference in ASQS dimensions regarding demographic characteristics was investigated, along with contributions to professional practice and recommendations for Al-Waha managers. The chapter concludes with recommendations for future research because it is a unique study in a region that has limited research on service quality.

6.1 Overview of the research

Service quality is defined as an overall judgment of the service or product (Rust & Oliver, 1994). Therefore, the conceptualization and measurement of service quality is difficult because service quality is an elusive and abstract concept and because of the characteristics of services which are intangibility, inseparability, heterogeneity and perishability. Researchers generally follow one of the two major schools of thought; the American school or the Nordic school when measuring service quality. There are similarities and differences between the two schools of thought; one of the important similarities is that both schools view service quality as a multidimensional construct. Another similarity is that both schools view service quality as the difference between expected services and perceived or experienced services. One of the main differences is the number of dimensions each school has; the Nordic school consists of two or three dimensions while the American school consists of five dimensions. The Nordic school's dimensions are technical quality and functional quality and sometimes image is viewed as a dimension. The American school's five dimensions are: tangibility, reliability, responsiveness, assurance and empathy. The American school is more widely known than the Nordic school and uses SERVQUAL, a 22 item scale to measure service quality (Kang &

James, 2004). Whilst SERVQUAL is widely used it has been criticized on a number of issues such as using the gap model, reliability, validity and the number of dimensions.

The focus of the research is to measure service quality at Al Waha shop and whilst SERVQUAL is widely used it is argued in the literature that there is a need to use a more specific scale for measuring retail service quality. Customers might use different criteria to evaluate retail shops that sell a mix of products and services, hence the need for a more specific scale (Vazquez *et al.*, 2001). The RSQS scale was developed as a scale for measuring retail service quality in shops that offer a mix of products and services. The scale consists of 28 items across five dimensions: physical aspects, reliability, personal interaction, problem solving and policy. Whilst the RSQS is appropriate for measuring retail service quality, research suggests the need for an even more context specific scale. Evidence shows that customers in different industries or countries might evaluate service quality differently. This led the researcher to modify the scale to make it more appropriate for measuring retail services at Al Waha. The scale was developed for the context of Al Waha shop and all of the respondents were students at Dubai Women's College, which makes the use of the scale limited outside of the college shop.

The researcher in this study followed a positivist approach using a modified scale to gather information in order to analyze and then generalize the findings to the other 15 colleges that are part of the Higher Colleges of Technology. The scale was modified based on an extensive literature review that suggested that modified scales are more appropriate for specific contexts. Based on that the researcher interviewed customers of Al Waha which resulted in an addition of 12 items to the original RSQS scale and the researcher linked the 12 items to the literature. The 40 item scale was used in phase one of the study which was reduced to a 22 item scale after factor analysis and the new scale Al Waha Service Quality Scale (ASQS) was used in the main study. A total of 350 questionnaires were distributed for phase one of the study but only 303 completed questionnaires were used. This is a very high response rate of completed questionnaires and this was due partly because the researcher asked customers that were shopping in Al Waha. For the main study a total of 500 questionnaires were distributed but only 424 completed questionnaires were used for the analysis. A high response rate (94%) was found in a study on service quality provided by the Information Technology department in three higher education institutes in the UAE including the Higher Colleges of Technology.

The scale was deemed appropriate for use in the college shop based on the high reliability 0,930 and validity of the scale.

The new scale ASQS resulted in four dimensions which are interaction quality, physical aspects, caring and commitment and policy. The interaction quality dimension was a combination of the reliability, personal interaction and problem solving dimensions of the RSQS. The caring and commitment dimension is unique to this study and is not similar to any dimension on the RSQS scale. The physical aspects and policy dimensions are similar to the physical aspects dimension and policy on the RSQS. The relationship between ASQS dimensions and overall service quality, satisfaction, loyalty, frequency of visits was investigated. In addition, the difference between ASQS dimensions regarding demographic characteristics was investigated. There is evidence in the literature to suggest that an increase in satisfaction increases loyalty; and an increase in loyalty leads to an increase in the amount of repeat purchases. Research suggests that demographic characteristics have an effect on some service quality dimensions and demographic information shows that customers with different demographic characteristics have different perceptions of service quality.

6.2 The objectives of this research

The main objective of this study is to develop a scale to measure retail service quality in a college shop. The second objective of the research is to investigate the relationships between the service quality dimensions and satisfaction, loyalty and frequency of visits. The third objective of this study is to measure any differences between service quality dimensions by demographic characteristics. Based on the review of the literature and in order to meet the objectives of this study the following research question has been formulated:

How to evaluate retail service quality in a college shop and its influence on customers?

Based on the overall research question, these questions emerged to answer the overall research question.

1. How should service quality perception be measured at a college shop using a context-specific scale?
2. Is there an association between service quality dimensions and overall service quality, satisfaction, loyalty and frequency of visits?

3. Is there a difference between service quality dimensions by demographic information?

6.3 Overview of the research findings

In answering the first research questions, the customized scale was found to be appropriate and very successful in measuring service quality at the college shop. A full discussion answering this question can be found in section 6.4.1. Hypotheses 2, 3 and 4 are used to answer the second research question. Hypothesis 5 is used to answer the third research question. **Table 6.1** below is a summary of the hypotheses findings.

Table 6.1: Summary of the hypotheses

Number	Hypotheses	Result
Hypothesis 1	The modified service quality dimensions have a positive association with overall service quality	
Hypothesis 1-1	The interaction quality dimension has a positive association with overall service quality	Accepted
Hypothesis 1-2	The physical aspects dimension has a positive association with overall service quality	Accepted
Hypothesis 1-3	The caring and commitment dimension has a positive association with overall service quality	Rejected
Hypothesis 1-4	The policy dimension has a positive association with overall service quality	Rejected
Hypothesis 2	The modified service quality dimensions have a positive association with overall satisfaction	
Hypothesis 2-1	The interaction quality dimension has a positive association with overall satisfaction	Accepted
Hypothesis 2-2	The physical aspects dimension has a positive association with overall satisfaction	Rejected
Hypothesis 2-3:	The caring and commitment dimension has a positive association with overall satisfaction	Accepted

Hypothesis 2-4	The policy dimension has a positive association with overall satisfaction	Rejected
Hypothesis 3	The modified service quality dimensions have a positive association with loyalty to Al Waha	
Hypothesis 3-1	The interaction quality dimension has a positive association with loyalty to Al Waha	Accepted
Hypothesis 3-2	The physical aspect dimension has a positive association with loyalty to Al Waha	Rejected
Hypothesis 3-3	The caring and commitment dimension has a positive association with loyalty to Al Waha	Accepted
Hypothesis 3-4	The policy dimension has a positive association with loyalty to Al Waha	Rejected
Hypothesis 4	The modified service quality dimensions are positively correlated with frequency of visits to Al Waha	
Hypothesis 4-1	The interaction quality dimension is positively correlated with frequency of visits to Al Waha	Accepted
Hypothesis 4-2	The physical aspect dimension is positively correlated with frequency of visits to Al Waha	Accepted
Hypothesis 4-3	The caring and commitment dimension is positively correlated with frequency of visits to Al Waha	Accepted
Hypothesis 4-4	The policy dimension is positively correlated with frequency of visits to Al Waha	Accepted
Hypothesis 5	There is a significant difference in Al Waha service quality scale dimensions by demographic information	
Hypothesis 5-1	There is a significant difference in Al Waha service quality scale dimensions by the customers' age groups	Accepted
Hypothesis 5-2	There is a significant difference in Al Waha service quality scale dimensions by customers' gender	Rejected
Hypothesis 5-3	There is a significant difference in Al Waha service quality scale dimensions by customers' marital status	Rejected

Hypothesis 5-4	There is a significant difference in Al Waha service quality scale dimensions by customers' educational level	Rejected
Hypothesis 5-5	There is a significant difference in Al Waha service quality scale dimensions by customers' family income	Rejected

6.4 Meeting the objectives of this research

6.4.1 Achieving objective number one

Based on extensive literature review, it was concluded that the best method to measure service quality in retail shops is a modified RSQS scale. The process of modifying the RSQS scale was rigorous and long; it took over a year to go through the whole process. It started with a literature review, then in-depth interviews, then phase one of the study and finally the Al Waha service quality scale. The RSQS scale was customized to make it more context specific to the college shop which is located at Dubai Women's College. Based on interviews 12 items were added to the 28 item original RSQS scale which resulted in a 40 item scale before factor analysis. Using principal component analysis with varimax rotation, the scale was reduced from the 40 items to 22 items. This resulted in a new scale called the Al Waha Service Quality Scale (ASQS), which is more context specific and sensitive to the UAE culture. Based on reliability and validity tests, ASQS possesses high reliability 0.930 and validity for use in the college shop.

The original RSQS dimensions are physical aspects, reliability, personal interaction, problem solving and policy. The ASQS dimensions are:

- Interaction quality
- Physical aspects
- Caring and commitment
- Policy

The interaction quality dimension explained about 40% of the variance in ASQS, which is more than the other three dimensions combined. It consists of nine items and is a combination of the reliability, personal interaction and problem solving dimensions. The interaction quality consists of two items from the reliability dimension, four items from the personal interaction dimensions and three items from the problem solving dimension. By looking at **Table 6.2** below it is clear that the items under this dimension are about the quality of the interaction between the customers and employees. This dimension is different because it combines three other dimensions from the RSQS into one dimension that measures interaction quality and is specific for Al Waha shop.

Table 6.2: Interaction quality dimension

Dimension 1: Interaction quality
Al Waha performs the services right the first time
Al Waha has product available when the customers want it
Employees in Al Waha are never too busy to respond to customer's request
Employees in Al Waha give fast services to customers
Employees in Al Waha tell customers exactly when services will be performed
When a customer has a problem, Al Waha makes an effort in solving it
Employees in Al Waha are able to solve customers' problems immediately
Customers can easily identify Al Waha employees

The physical aspects dimension explained about 6.8% of the variations in ASQS and consists of six items. The physical aspects dimension in this study is similar to the physical aspects dimension on the RSQS except that one item was dropped and one item that was added. The item that was deleted from the physical aspects dimension on the ASQS is “the store has clean and attractive public areas”. The item that was added from the reliability dimension is ‘when Al Waha promises to do something by a certain time, it will do so’.

The caring and commitment dimension explained about 5.3% of the variations in ASQS and consists of four items and is a totally new dimension not similar to any of the RSQS dimensions.

The caring and commitment dimension is, as was discussed in Chapter Four, close to the concept of affective commitment. The items under the caring and commitment dimension in this research study are presented in **table 6.3** below.

Table 6.3: Caring and commitment dimension

There is a warm relationship between employees of Al Waha and customers
I feel good when I receive good services from employees of Al Waha
Employees of Al Waha give equal treatment to all customers
The well-being of Al Waha employees is important to me

Table 6.3 shows that item one and item four are about relationships between the employee and the customer. Items two and three are about receiving good services and being treated equally, which are both important to customers. The caring and commitment dimension is important in a collectivist society because of the importance of relationships in such societies. Social needs, such as friendship and acceptance, are important in eastern cultures; therefore,

people in this culture spend more time with family and friends than those in western cultures (Wilson et al., 2008).

The notion of relationships between customers and the service provider is not new, and this relationship is thought to be more relevant to service industries because of the nature of services (Fullerton, 2005). The findings of this research support the importance of customer commitment in service industries, and the findings are new for a college shop in the UAE. In collectivist societies, customers develop bonds with employees; therefore, it is important for service providers to train employees to deal with customers sincerely, which encourages customer loyalty to the service providers (Ozdemir & Hewett, 2010).

The new dimension of caring and commitment is consistent with the collectivist nature of the UAE. Culture begins to be embedded in children when they are born, just as language is, from families and then society (Hofstede, 2001). The individual in a collectivist society learns in terms of “we”, and this is the way people from such cultures perceive the world (Hofstede & Hofstede, 2005). Furthermore, culture influences belief systems, which influence expectations and perceptions of products or services, which therefore influence customer purchasing choices or buying behavior (Kueh & Voon, 2007). The most widely used dimension in marketing literature is the individualism/collectivism dimension, with some researchers arguing that even this dimension has to be more closely analyzed and suggesting horizontal and vertical dimensions of individualism and collectivism (Sivadas, Bruvold & Nelson, 2008).

The policy dimension explained 5.04% of the variation in ASQS and consists of three items. Two of the three items in the policy dimension are similar to the policy dimension on the RSQS scale and the third item is “Al waha’s policies on returns are clearly laid out.” The 22 item ASQS under the four dimensions achieves aim number one which is “How should service quality perception be measured at a college shop using a context-specific scale”.

6.4.2 Achieving objective number two

The second aim of the research was to test the association between ASQS dimensions and overall service quality, satisfaction, loyalty and frequency of visits. To that end, a multiple regression analysis was conducted and the findings are presented in **Table 6.4** below.

Table 6.4: Results of the hypotheses testing

Dimensions	Overall service quality	Satisfaction	Loyalty	Frequency of visits
Interaction quality	Yes	Yes	Yes	Yes
Physical aspects	Yes	No	No	Yes
Caring and commitment	No	Yes	Yes	Yes
Policy	No	No	No	Yes

The results in **table 6.4** show overall service quality associated with the Interaction Quality and Physical Aspects dimensions only. While ASQS scale has four dimensions, customers evaluate overall service quality through Interaction Quality and Physical Aspects. Satisfaction is associated with the interaction quality and caring and commitment dimensions. This indicates that customers evaluate satisfaction through interaction quality and caring and commitment. Loyalty is associated with the interaction quality and caring and commitment dimensions. This indicates that customers evaluate loyalty through interaction quality and caring and commitment dimensions.

It is important to point out that the R square value for overall service quality was 0.17, which indicates that only 17% of the variation in overall service quality can be explained by the independent variables interaction quality and physical aspects. The R square value for satisfaction as a dependent variable was 0.187, meaning that only 18.7% of the variation in satisfaction can be explained by the independent variable's interaction quality and caring and

commitment. The R square value for loyalty as a dependent variable was 0.124, indicating that 12.4% of the variation in loyalty can be explained by the independent variables interaction quality and caring and commitment. The R square value is low for overall service quality, satisfaction and loyalty which is an indication that there are other factors that affect these dependent variables. Customers might be shopping at Al Waha for reasons other than overall service quality, satisfaction and loyalty. The reasons could be that Al Waha shop location is convenient, or customers visit the shop with their friends or they have friends working in the shop.

All dimensions are positively correlated with frequency of visits; however, these correlations are very weak ranging from 0.195 and 0.295. The strongest correlation, 0.295, was between the interaction quality dimension and frequency of visits and the weakest correlation was with the policy dimension. Testing the association between ASQS dimensions and overall service quality, satisfaction, loyalty and frequency of visits achieves aim number two which is to answer the question ‘Is there an association between service quality dimensions?’

6.4.3 Achieving objective number three

The third aim of this study was to test the differences in ASQS dimensions by demographics information. A Kruskal-Wallis test was performed to examine the difference in the score values of Al Waha service quality scale dimensions across customer age, marital status, educational level and income level, presented in **Table 6.5** below. There were differences in the physical aspects dimension across the age groups and differences in the caring and commitment dimension across the age groups. A close examination of these two dimensions reveals that the age group 21-26 ranked the physical aspects dimension and caring and commitment dimension higher than the age group 15-20 and higher than the age group ‘other’.

A Mann-Whitney U test was performed to find the difference in the score values of Al Waha service quality scale dimensions across customer gender; there were no significant associations regarding gender across ASQS dimensions. Testing the differences in ASQS by demographic characteristics achieves aim number three which is to answer the question ‘Is there a difference between service quality dimensions by demographic characteristics?’

Table 6.5: Correlation analysis between service quality dimensions and demographic information

	Age	Gender	Marital status	Educational level	Family income
	Kruskall-Wallis	A Mann-Whitney	Kruskall-Wallis	Kruskall-Wallis	Kruskall-Wallis
Dimensions					
Interaction quality	No	No	No	No	No
Physical aspects	Yes	No	No	No	No
Caring and commitment	Yes	No	No	No	No
Policy	No	No	No	No	No

6.5 Contribution to Knowledge

This study contributes to the body of knowledge and service quality literature in numerous ways. First, the development of the modified RSQS which was used in a non-western context provides a major contribution to the service quality theory. Second, to the knowledge of the researcher, this is the first scale that measures retail service quality in the Arab world and more specifically the United Arab Emirates. Third, this study, to the knowledge of the researcher, is the first study that measures retail service quality in a female college shop. Not only is it conducted in a college shop, but in a female college shop that is staffed by UAE nationals. The concept of having a shop staffed by young Arab Emirati women is unique in the region.

Fourth, not only did this study customise the RSQS to be more context specific, it investigated the relationship between the ASQS dimensions and overall service quality, satisfaction, loyalty, and frequency of visits. This was followed by a difference between the ASQS

dimensions and demographic information. This study is one of the few studies that investigated service quality at the dimension level and its association with other factors such as satisfaction and loyalty. Fifth, several important findings emerged, the results of the study found overall service quality to be positively associated with interaction quality and physical aspects. Satisfaction is positively associated with interaction quality and caring and commitment. Loyalty is positively associated with interaction quality and caring and commitment. Frequency of visits is positively correlated with all ASQS dimensions; however these correlations are very weak. There were differences in the physical aspects and caring and commitment dimensions by age. Sixth, this study is also unique because it resulted in dimensions that are specific to the retail industry in Dubai. Consequently, this will also help managers to understand customer's perception of service quality at the college shop. Ultimately, this study provides a solid foundation to enable further research to be carried out in the field of service quality in the Arab region. Finally, this study identifies the weakest points under each dimension.

6.6 Contribution to professional practice

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as satisfaction and loyalty. Fifth, several important findings emerged, the results of the study found overall service quality to be positively associated with interaction quality and physical aspects. Satisfaction and loyalty are positively associated with interaction quality and caring and commitment. Frequency of visits is positively correlated with all ASQS dimensions; however these correlations are very weak. There were differences in the physical aspects and caring and commitment dimensions by age. Sixth, this study is also unique because it resulted in dimensions that are specific for the retail industry in Dubai. Consequently, this will also help managers to understand customer's perception of service quality at the college shop. Ultimately, this study provides a solid foundation to enable further research to be carried out in the field of service quality in the Arab region. Finally, this study identifies the weakest points under each dimension.

6.7 Recommendations to management of Al Waha shop

Recommendations to Al Waha managers depends on the priority of the management of the shop; if the focus is on overall service quality then based on the findings of this research managers must focus on the interaction quality and physical aspects dimensions. If Al Waha is trying to keep customers satisfied, employees must work hard to overcome the weaknesses of the interaction quality and caring and commitment dimensions. To keep customers loyal Al Waha must focus on the interaction quality and caring and commitment dimensions. The interesting point here is that interaction quality dimension is positively associated with overall service quality, satisfaction and loyalty. This suggests that special care should be given to this dimension and the items under this dimension because regardless of the focus of management.

One suggestion for improving the relationships between service quality dimensions and overall service quality, satisfaction, loyalty, frequency of visits and the differences in the ASQS regarding the demographic characteristics is to look at the two weakest points under each dimension. This would depend on the relationship between the ASQS dimensions and the factors that management wants to target. If managers are concerned with keeping customers loyal, then they would look at the two weakest items under the interaction quality and caring and commitment dimension because they are positively associated with loyalty. The same applies to satisfaction; if managers are targeting satisfied customers, then managers

would focus on the two weakest points under the interaction quality and caring and commitment dimensions because they are positively associated with satisfaction.

Managers of Al Waha must be aware that there are differences among age groups in regarding the physical aspects and caring and commitment dimension based on the results of this study. The older students seem to rank the physical aspects dimension and caring and commitment higher than the younger group. A suggestion to management is to take into consideration the suggestion of the younger groups when they try to look at ways to improve physical aspects and caring and commitment dimensions. If managers are concerned with differences among different age groups then they would focus on the two weakest points under the physical aspects dimension and caring and commitment dimension because there are differences in these two dimensions with regards to the age groups. There were no other differences regarding the other demographic information in this study.

Table 6.6 below shows the percentage of respondents who strongly agree and agree with the two weakest items under each dimension. This is based on **Table 5.33** from Chapter Five, which calculated the percentage of respondents who strongly agree and agree with each statement under each of the four dimensions. Only the two weakest items under each dimension are shown in table 6.5. Column 1 shows the dimension, column 2 shows the item under that dimension and column 3 shows the percentage of respondents who strongly agree and agree with each statement.

Table 6.6: Responses of strongly agree and agree to all items on the questionnaire

Dimension	Items	% of respondents that SA and agree
Dimensions 1: Interaction Quality	When a customer has a problem, Al Waha makes an effort in solving it	• 65%
	Al Waha has product available when the customers want it	• 63.6%
Dimension 2: Physical aspects	Al Waha store has a modern look	• 74.3%
	When Al Waha promises to do something by a certain time, it will do so	• 65.8%
Dimension 3:	Employees of Al Waha give equal treatment to all customers	• 79.5%

caring and commitment	The well-being of Al Waha employees is important to me	• 76.1%
Dimension 4: Policy	Al Waha's policies on returns are clearly laid out	• 68%
	Al Waha should offer its own credit cards	• 67.3%

Based on **Table 6.6**, the following is a suggested list of recommendations for Al Waha managers: These suggestions are linked to the context of the study in phase one of the study chapter and the job description of Al Waha employees in the same chapter.

Interaction quality dimension: The weakest two points in the dimension are 'When a customer has a problem, Al Waha makes an effort in solving it' and 'Customers can easily identify Al Waha employees'. The weakest point was the handling of problems; a suggestion to overcome this weakness is to train employees to solve problems and to show customers that they are trying to solve problems. Managers must look at the job description of the customer service and merchandising clerk to make sure that the employees are aware that problem solving is part of their job description. One of the items of the job descriptions of the customer service and merchandising clerk is to greet the customers. The management must look at this item to see if this was covered during orientation and if there are systems in place that reward or penalize the employee for doing a good job in this area. Are employees given enhanced training to remember that this point is important? Another item on the list for the job description for the customer service and merchandising clerk is to be able to solve problems before the end of her shift. Again, managers of Al Waha must ensure that this is communicated properly to the employee and the employee knows the steps that need to be followed when solving a problem. Are there procedures that are put in place for handling of problems and are these procedures well communicated to the employees of Al Waha? Another item on the list for the job description for the customer service and merchandising clerk is finding the correct answers for customers. It needs to be clear to the employees that there are steps that need to be followed when looking for the answer.

The second weakest point is that customers cannot identify Al Waha employees because Al Waha employees do not have uniforms as observed by the researcher. It is the responsibility of the shift manager to ensure that all employees are wearing their name badges. A suggestion would be that the shift manager must have extra badges are available for employees if they

forget to bring their badges. The shift manager must enforce the rule that requires employees to wear their badges while working at Al Waha. Another suggestion to make the employees more noticeable is to have a sash or a special uniform for Al Waha employees.

Physical aspect dimension: The two weakest points in the dimension are 'When Al Waha promises to do something by a certain time, it will do so' and 'Al Waha store has a modern look'. The weakest point is delay in delivering products by a certain time; this could be overcome by setting realistic goals and giving ample time for product delivery and having proper systems for ordering in place and employees are trained properly in how to deal with customers when ordering products. Al Waha must deliver on their promises and inform customers in advance that the delivery takes anywhere from 24 to 48 hours which does not happen as observed by the researcher.

The second weakest point is how Al Waha looks, and this could be overcome by changing the design of Al Waha and not necessarily by investing money to upgrade the fixtures and fittings. This is part of the job description of the customer service and merchandising clerk who must ensure that the display of the merchandise in the shop is attractive. Also, this could be done with the help of the shift manager or Al Waha managers.

Caring and commitment dimension: The two weakest points in the dimension are 'The well-being of Al Waha employees is important to me' and 'Employees of Al Waha give equal treatment to all customers'. The weakest point in this dimension concerns the well-being of Al Waha employees; a suggestion to overcome this weakness is to encourage more positive relationships with customers. One suggestion is to ask employees to call frequent customers by their first names to make them feel that they are important and this does not happen as observed by the researcher. The second weakest point is the way customers are treated; this is part of the cashier's responsibility. Part of the cashier's responsibility is to ask employees to serve customers in the order they arrive and to not give preference to customers they know. Another suggestion is to have a clear line that customers can stand in to ensure that they are served in the appropriate order. This does not always happen as observed by the researcher.

Policy dimension: The two weakest points in the dimension are 'Al Waha should offer its own credit cards' and 'Al Waha's policies on returns are clearly laid out'. One suggestion to overcome the first weakness is to provide credit card facilities in Al Waha. Although female

students are accustomed to paying cash, it is important to have other options for customers. This is not listed under any of the responsibilities of the employees, it is a management decision. To overcome the second weakness, the shift manager must post Al Waha return policies in places that are clearly visible to customers. The researcher did not see any clear posting of return policies and when asked, employees were not aware of the return policies. It is part of the shift manager's responsibilities to be responsive to customer's needs. Managers must be aware of customers' complaints and try to resolve them.

Another suggestion is to have a benchmark of 75% of the respondents who strongly agree and agree with the items under each dimension. Any item that falls below the 75% benchmark can be considered as a challenge depending on the focus of the management. When management focus on overall service quality, they would look at the items that fall below the 75% benchmark under the Interaction Quality and Physical Aspects dimension because they are positively associated with overall service quality. The same applies to satisfaction, loyalty, frequency of visits or demographic information.

Table 6.7 below shows the findings as regards customer agreement to items on the ASQS. The decision as to what constitutes a weak performance on an item is left to the managers of Al Waha. For example, managers of Al Waha could take anything below 75% of the respondents strongly agreeing or agreeing with a statement as a challenge. This would mean that in the interaction quality dimension all the items except one would be seen as a challenge. In the physical aspects dimension three items would be considered a challenge, none of the items would be considered as a challenge under the caring and commitment dimensions and two items would be considered as a challenge under the policy dimension.

Table 6.7: Responses of strongly agree and agree to all items on the questionnaire

Dimension	Items	% of respondents that SA and agree
Dimension 1: Interaction quality		
	Employees in Al Waha give fast services to customers	• 78.9%
	Al Waha gives customers individual attention	• 74.8%
	Employees in Al Waha are never too busy to respond to customer's request	• 71.6%
	Al Waha performs the services right the first time	• 71.2%
	Employees in Al Waha tell customers exactly when services will be performed	• 69.8%
	Employees in Al Waha are able to solve customers' problems immediately	• 67.8%
	Customers can easily identify Al Waha employees	• 67%
	When a customer has a problem, Al Waha makes an effort in solving it	• 65%
	Al Waha has products available when the customers want it	• 63.6%
Dimension 2: Physical aspects	The inside of Al Waha is neat	• 81.3%
	Al Waha layout makes it easy for customers to move around in the store	• 81.3%
	Al Waha layout makes it easy for customers to find what they need	• 76.1%
	Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing	• 74.5%

	Al Waha store has a modern look	• 74.3%
	When Al Waha promises to do something by a certain time, it will do so	• 65.8%
Dimension 3: caring and commitment	I feel good when I receive good services from employees of Al Waha	• 82.5%
	When Al Waha promises to do something by a certain time, it will do so	• 80.4%
	Employees of Al Waha give equal treatment to all customers	• 79.5%
	The well-being of Al Waha employees is important to me	• 76.1%
Dimension 4: policy	Al Waha should accept most major credit cards	• 76%
	Al Waha's policies on returns are clearly laid out	• 68%
	Al Waha should offer its own credit cards	• 67.3%

The table above gives managers an indication of the weakest statements according to the respondents of Al Waha. As suggested earlier management could decide that any item that is below 75% in **table 6.7** above is considered as a challenge. Therefore, if management was looking to improve overall service quality, then management would focus on the items that fall below 75% on the interaction quality and physical aspects dimensions because they are associated with overall service quality.

If management decides that the focus must be on satisfaction, then management must focus on items that fall below 75% on the interaction quality and caring and commitment dimensions. If management decides that the focus must be on loyalty, then management must focus on items that fall below 75% on the interaction quality and caring and commitment dimensions.

The weakest agreement under the interaction quality dimension item is 'Al Waha has the product available when the customers want it'. This suggests to managers that they should look at increasing the product range. The weakest agreement under the physical aspects

dimension item is 'When Al Waha promises to do something by a certain time, it will do so'. This suggests to managers that they must not over-promise or report unrealistic times for delivery of such products as mobile phones. The weakest agreement under the caring and commitment dimension item is 'Employees of Al Waha give equal treatment to all customers'. This suggests to managers that they must emphasize treating everyone equally and not give preferential treatment to friends. The weakest agreement under the policy dimension is with the item 'Al Waha should offer its own credit card'. This means that while customers view Al Waha offering its own credit card as important, it is not as important as Al Waha accepting most credit cards.

Al Waha managers have an opportunity to improve Al Waha services by being more proactive; not only noticing the details but also incorporating them into a training program for the employees. Such measures could include the way employees solve problems, the way the employees interact with customers and pay attention to customers' needs, and ways to ensure products are made available to customers when they need them. Sometimes Al Waha runs out of products, which inconveniences the customers and forces them to buy those products elsewhere. In addition, Al Waha managers must make sure that the systems that are in place are working and that employees are aware of these systems. Another suggestion would be to make sure that there are enough employees to serve customers especially in the peak hours.

6.8 Summary of contributions of this study

There are many major contributions to this study and they are as follows:

- Scale modification: ASQS is a valid and reliable scale that can be used in the UAE; to the knowledge of the researcher this is the first scale that has been developed in retail service quality for the region.
- Dimensions: ASQS scale produced four dimensions and they are: interaction quality, physical aspects, caring and commitment and policy.
- Interaction Quality dimension is the largest dimension and is positively associated with overall service quality, satisfaction, loyalty and frequency of visits.

- Physical aspects dimension is the second largest dimension and it is positively associated with overall service quality and frequency of visits.
- Caring and commitment is a unique dimension positively associated with satisfaction, loyalty and frequency of visits. The caring and commitment dimension is unique to this study and, managers must realize that relationships between customer and employees are important.
- Policy is the smallest dimension and it is not positively associated with frequency of visits.

6.9 Limitations of the study

Although this study is unique in many ways, such as the modification of a scale and subsequently testing different relationships, there are some limitations to this research. First, the generalizability of the study is limited because of the narrow demographic differences. Additionally, since only United Arab Emirates are permitted to study at Dubai Women's College, it is not a complete representation of a country that consists of 90% expatriates. The age of the students is mostly between 18 and 25, which again is not a complete representation of the entire population. Furthermore, although there are a few male students at the college, the student population is predominantly women, which means the study is a representation of the views of female customers since the male sample is not large enough on which to draw conclusions. The researcher measured service quality from the customer's perspective; however, the employees and managers of Al Waha may have had a different assessment of service quality. The North American school suggests that service quality should be measured by customers', employees' and managers' perspective to close all service quality gaps; however they recognize that the consumer gap is the most important, hence the focus of this study was on the customers' viewpoint. Additionally while there is a dearth of studies on service quality within the retail sector in the UAE this study makes a significant contribution to knowledge in this area, such strength can also be viewed as a limitation because of the lack of studies in retail service quality for shops in the UAE, making benchmarking this study against other studies in the region difficult. To overcome this weakness, the researcher used

the results from the few available studies on service quality, which were conducted in banks in the UAE, to make comparisons with the findings of this study.

6.10 Reflections on the Research

There are many interesting findings of this research which makes the study unique and significant. The scale development was robust and the findings were unique to the college shop. The response rate to the questionnaire was very high since the researcher worked at the college shop and maintained good relationships with the customers of the shop, consequently, customers of Al Waha were willing to participate in the interviews and help wherever possible.

However, on reflection, the development of the questionnaire was time consuming and the researcher spent over a year developing and conducting the questionnaire, it also took time for approval to be granted in order to administer the questionnaire in the college shop. It would have been easier and less time consuming if the researcher had gone to any retail store and asked consumers, who had finished shopping, to complete the modified questionnaire. Two large studies were undertaken by the researcher where both samples had over 300 respondents. On reflection, the researcher could have conducted, a pilot study with a small sample, that would have had close results and phase one could have been omitted, thus saving time. The association between the dependent variable and the independent variables were not as strong as expected and the results indicated that there are other factors that influence service quality, satisfaction, loyalty and frequency of visits at the college shop. Follow up interviews as part of a qualitative approach could have been used to interpret the results and elicit answers to the questions that the quantitative approach was unable to answer. Maybe the use of additional focus groups could have proved more constructive at the design stage of the questionnaire to glean more information regarding customers' opinions of Al Waha shop.

A questionnaire was used for data collection, even though the literature in service quality has extensively used the quantitative method, this study could have been complemented by qualitative research. A combination of quantitative and qualitative methods would give a better understanding of the views of Al Waha customers and a more in depth knowledge would be attained about customers' behavioural intentions. Furthermore, observation could have been used to evaluate customers' shopping experience. Finally, using brain storming

could have generated items for the newly developed scale. On reflection, the researcher would have generated all item scales instead of modifying a scale that already exists and subsequently would have used a combination of a quantitative and qualitative approach to gain a more in depth knowledge concerning customers' opinions.

This study could have been expanded to include other colleges in the system in addition to Dubai Women's College. This could give more insight into whether there are any shopping or behavioural differences between rich cities and poor cities in the United Arab Emirates. Furthermore, the results of this study should be used with caution when generalizing alongside other industries in the region without additional testing of the newly modified scale. More male respondents would have enhanced the results of this study. The questionnaire could have been administered in the men's college as well as the women's college to capture the perspective of both male and female customers.

Using SPSS was challenging at times and required a lot of reading and reviewing the literature in this area. Phase one of the study had over 300 respondents which required the data to be input into SPSS before the results could be analysed, the main study had more than 400 respondents and again the results had to be analysed. The researcher double checked all the inputted data which took a significant amount of time to accomplish.

Undertaking this research was an enormous but rewarding experience and the research journey has helped the researcher to develop a plethora of skills including, academic writing, research skills and to become competent using SPSS and many other software packages. The findings of the research could considerably benefit the college shop and the Arab region in general. In the future the researcher is hoping to publish articles regarding service quality which will assist other academics and practitioners in the Arab region.

6.11 Recommendations for future research

The Al Waha service quality scale is the first to measure retail service quality in a college shop in the UAE, so it thereby serves as a basis for other scales which may be modified or adapted from it. With this taken into account, recommendations for future research are as follows:

- **Demographics:** the study was conducted in a college shop that is mostly visited by UAE female students between the ages of 15 to 26. It would be useful to include other nationalities in a future study, especially given that UAE nationals represent only 10% of the population of the UAE, with the other 90% being comprised of expatriates. Future research should expand the application of the Al Waha scale outside the college context to include other retail shops to see whether the scale produces similar results and bears similar implications. Even though some male participants were sampled, the college is a women's college and most of the customers of Al Waha are female. Thus, future studies along these lines should include different age groups and more male customers.
- A more detailed examination of the caring and commitment dimension could be a topic for future research. An interesting follow-up would be to find if this dimension is specific to the college shop or if it is replicated outside the college.
- The variation in the dimensions that are explained by overall service quality, satisfaction and loyalty is low. This is an indication that other factors affect satisfaction and loyalty. Other studies could try to find additional factors.
- Now that there is a modified scale to measure service quality in the region, further investigation of the relationship between service quality dimensions and cultural dimensions may be undertaken.
- The scale measured service quality from the customers' perspective; other studies could measure the perspective employees and managers have of service quality.
- Al Waha would benefit from a longitudinal study to find out whether the same dimensions are important and to test the relationships between the independent and dependent variables. Customers tastes might change over time and the dimensions that were important at one time might not be important in the future and this will change the focus of management.

- Service quality studies should be repeated at intervals to enable managers to assess whether the strategies implemented have improved service quality (Torlak, Uzokurt & Ozmen, 2010). There should also be more studies done to find out whether there is a direct relationship between service quality and profitability.

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Appendices

Appendix 1: Studies that used the RSQS and the results from the study

Author	Country/ Industry	Scale Test performed	No. of scale Items /dimensions	Changes and Results
Torlak, Uzkurt & Ozmen (2010)	Turkey Grocery Store	RSQS	28 items under four dimensions Exploratory factor analysis with varimax rotation	Four dimensions: Personal interaction, Reliability, Physical Aspects and Store Policies
Vesel & Zabkar (2009)	Europe DIY (Do it Yourself) stores	Used only personal interaction part of the RSQS Perception only Proposed model was tested with the structural model using the maximum	29 items Explorative factor analysis Oblimin rotation	Changed wordings of some items as well as deleted or added items Omitted two items from the personal interaction scale to make it more context specific

		likelihood (ML) method of estimation 7 point Likert scale		
Sum & Hui (2009)	Hong Kong Fashion chain store	22 items from SERVQUAL and 2 items from RSQS 7 point Likert scale	12 items and 5 dimensions	Scale wording changed to fit the context of salesperson service quality in fashion retail stores Empathy highest impact on loyalty and then tangibles
Caro & Garcia (2007)	Spain Transport	Used part of the RSQS scale Perception only Used hierarchical structure 5 point Likert scale	Started with 62 items, 31 items dropped from experts and final result was 14 items after using factor analysis	Items need to be reworded to be context specific Used a mixture of different scales Need to develop scale that are country/culture specific and context specific
Kaul (2007)	India Specialty apparel stores	RSQS Perception only	26 items Resulted in 4 factors that were a mix of	Perception only scale is more appropriate than the gap model A study examined the RSQS, at an apparel store in India

		Used hierarchical structure 7 point Likert scale	the different dimensions The principal components factoring method and varimax	and found the RSQS not suitable for Indian retailers and thus the need to have a more specific scale for Indian retailers. The results revealed four factors and found the perception of service quality dimensions in India is different from other countries Two items were dropped because they were inappropriate for Indian context. Some statement in the RSQS must be reworded to fit the Indian context. Problems using the hierarchical structure and found the factor structure different in India. Findings of four factors not five.
Parikh (2006)	India Retail stores	RSQS factor structure different in India. Findings of 9 factors Used Gap Model	28 items Physical aspects and policy had low reliability when measuring the expectation statements	Redefine the factors to be more suitable to the Indian context. Problem solving dimension and physical aspects had a reliability of less than 0.6 when measuring the perception statements A study by Parikh (2006) to test the RSQS in India using the gap model, found that the scale is reliable but the use of the gap model is inappropriate because the gap model resulted in nine dimensions, instead of five. The scale is not suitable for measuring retail service

			<p>Exploratory factor analysis</p> <p>5 point likert scale.</p>	<p>quality in Indian stores without modifications; some of the statements need to be reworded to make them more appropriate for the Indian market (Parikh, 2006). The study conducted by Parikh (2006) on a retail store in India found that using the RSQS as a perception-only scale is more appropriate because the gap model does not perform as well as the perception-only model in a retail context because of problems with the factor structure of the RSQS.</p> <p>Some statements must be reworded or changed to become more suitable to the Indian context. The perception based measure is a better measure than the gap model.</p> <p>Found problems with using the gap model for the factor structure.</p>
Siu & Chow (2004)	Japanese supermarket in Honk Kong	RSQS Perception only	<p>24 items scale</p> <p>7-point Likert scale</p> <p>5 factors</p>	<p>One item was deleted because it was found to be vague for the respondents</p> <p>In this study on Japanese supermarkets in Hong Kong five factors emerged: personal interaction, trustworthiness, physical aspect, policy and reliability. The problem solving dimension was combined with the personal interaction dimension and the new dimension trustworthiness was added as a new dimension</p> <p>Problem</p>

				<p>Solving dimension as given in the retail service quality scale was integrated into the Personal Interaction construct while a new factor emerged from the study, called Trustworthiness.</p> <p>Five items deleted due to low Cronbach alpha values.</p>
Vazquez et al (2001)	Spain Supermarkets	RSQS Perception only	<p>28 items reduced to 18 items were retained</p> <p>Confirmatory factor analysis and hierarchical model</p> <p>10 point Likert scale</p>	<p>Changed the SERVQUAL to fit the retail context by interviewing 12 customers</p> <p>Rejected the hierarchical model which means that the multidimensional structure of service quality is inadequate</p> <p>4 factors</p>
Kim & Jin (2002)	USA & Korea	RSQS	28 items reduced to	In a study to validate the RSQS in US and Korean discount stores, it was found that there are differences

	Discount stores	Perception only	<p>14 items after factor analysis</p> <p>4 dimensions</p> <p>Confirmatory factor analysis and hierarchical structure</p> <p>Likert scale not reported</p> <p>Mean of the factors to find the ranking</p>	<p>between the perception of service quality amongst US and Korean customers. The study suggests the need to modify the service quality scale used in different cultures. The way that the US and the Korean samples ranked retail service quality was the complete opposite.</p> <p>Used the RSQS without modification. In the Korean group the factor ranks were reliability, personal attention and physical aspects; for the US sample the rank was physical aspects, personal attention and reliability</p> <p>Five items designed to measure</p> <p>Policy found to be unreliable in both countries. Personal interaction and problem solving combined into a single construct named personal attention.</p> <p>Measurement equivalence did not exist across US and Korean samples. RSQS could not be viewed as a reliable and valid measure for cross-cultural comparisons</p>
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Siu & Cheung (2001)	Hong Kong Departmental store chain Looked at demographics	RSQS Perception only	25 items used from the RSQS scale after deleting 3 items as a result of a pre-test Principal component analysis with varimax rotation Used mean scores to compare the dimensions	Applied the RSQS at a department store in Hong Kong and found the scale to be usable in Hong Kong but needs to be modified to make it more suitable for Hong Kong. The study resulted in six factors which are: personal interaction, policy, physical appearance, promises, problem solving and convenience. Used demographics: gender, marital status, age, income Three items deleted in a pre-test. Five factor structure of RSQS could not be identified; instead six service quality dimensions emerged from the study. Factor 1 Personal interaction had 8 items Factor 2 Policy, 6 items Factor 3 Physical aspects 3 items Factor 4 Promises 2 items Factor 5 Problem solving 3 items Factor 6 Convenience 3 items
Mehta, Lalwani & Han (2000)	Singapore Supermarket and electronic retailers	RSQS Perception only	21 items retained Confirmatory factor analysis	Five factors-12 items under the service personal factor, 4 items under the PA factor, 2 items under the merchandise factor, 2 items under the confidence factor and 1 item under parking Two questions were changed to fit the context.

			5 point Likert scale	Found the RSQS to be superior to the SERVPERF in an environment where there are more goods than services, such as at supermarkets and the SERVPERF to be superior in an environment where there are more services than goods, such as in electronic sales. The study concluded that there needs to be a modified scale to measure retail service quality in Singapore because items that are relevant to the Singaporean market may not have been included in the RSQS or the SERVPERF.
Boshoff & Terblanche (1997)	South Africa Department stores, speciality stores and hypermarkets	RSQS Perception only Hierarchical model	32 items, all 28 items from RSQS plus 4 other items Confirmatory factor analysis	Found the scale to be valid and reliable for department stores, hypermarkets and speciality stores in South Africa that have a mix of products and services. The tool was found appropriate as a diagnostic tool; to identify weak areas in retail stores and to bring store problems to the attention of the managers Addition of 4 items to test the predictive, convergent and discriminate validity of the RSQS

Appendix 2: Cultural dimensions

Power distance is the degree of inequality of power distribution amongst members of groups or organisations and this inequality of power distribution is expected and accepted by members of groups or organizations that are not powerful (Hofstede & Hofstede, 2005).

Usually the inequality is in power and wealth which makes the powerful and wealthy entitled to privileges that the less powerful are not entitled to. Usually the more powerful members of society decide how power is distributed amongst other members of the society (Hofstede & Hofstede, 2005).

Individualism and collectivism is the degree to which members of a society view themselves as individuals or part of a group (Hofstede & Hofstede, 2005). The society in which people put the interest of the group ahead of the individuals' interest is called a collectivist society and the society in which the interest of the individual is ahead of the group is called an individualist society. Arab countries in general are collectivist societies although some are more collectivist than others such as Saudi Arabia (Hofstede & Hofstede, 2005).

Masculinity and Femininity is the extent to which a society has a dominant role of men or women (Hofstede & Hofstede, 2005). Masculine societies are ambitious, result oriented and rewards depend on the employee's performance. However, feminine societies are concerned with equality and quality of life. Therefore, services where there is a great deal of contact between customers and employees need to have feminine values which more desirable in this type of industry (Hofstede & Hofstede, 2005).

Uncertainty Avoidance is the degree to which members of a group feel uncomfortable with uncertainty or ambiguity (Hofstede & Hofstede, 2005). Societies with high uncertainty avoidance require more rules to govern the relationship between the employer and employees. Societies with high uncertainty avoidance require more structure in relationships and are not tolerant of behaviour that is different (Kueh & Voon, 2007).

Long-versus short term orientation is the degree to which the society is associated with long term or short term goals (Hofstede & Hofstede, 2005). According to Kueh & Voon (2007) long term orientated societies are concerned with the future therefore they have self-discipline

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and adapt quickly to changes. However, short term orientated societies are concerned with the past and present; therefore they look for quick results and are achievement orientated.

Appendix 3: Interviews with customers of Al Waha

Interview notes	Item on questionnaire	Link to the literature review	Dimension
<p>Interviewee 1: I am usually shy, therefore I prefer to deal with women.</p> <p>Interviewee 2: I feel more relaxed when buying from female employees.</p> <p>Interviewee 3: I prefer to buy personal feminine products from female employees.</p> <p>Interviewee 4: I feel more comfortable approaching female employees to ask questions about products.</p>	Female customers feel more comfortable buying from female employees**	Some females prefer to do banking in banks that have a female branch and banks that are interested in expanding services will look at having branches that serve female customers only (Eagle, 2009). This is similar in some ways to a question added by Jabnoun & Khalifa (2005) which asked customers of a bank if the services of the bank are in line with their social values and another question that asked if the bank services are in line with their religion	Other
<p>Interviewee 1: I am not sure about Al Waha return policies.</p> <p>Interviewee 2: Can I return products after I buy them?</p> <p>Interviewee 3: What do I have to do to return a defective product?</p>	Al Waha's policies on returns are clearly laid out*	The same question was asked in a questionnaire: "It is important to have instructions spelled out in detail so that I always know what I'm expected to do?" (Yoo & Donthu, 2002, p.102).	Policy

<p>Interviewee 4: How long before I can return the product?</p> <p>Interviewee 5: Do I have to have a receipt to return a product I bought before?</p>			
<p>Interviewee 1: I would like to see more known products in Al Waha.</p> <p>Interviewee 2: Usually branded products are of high quality.</p> <p>Interviewee 3: Quality of the products can be improved.</p>	<p>Al Waha offers branded products</p>	<p>The same question was asked on a marketing questionnaire for Nike conducted by Yoo and Donthu (2002) “ the stores where I can buy Nike have well-known brands” (Yoo & Donthu, 2001) and another similar question is “ I think that the brand name is known for (high quality to poor quality)” (Agarwal & Teas, 2002, p.234).</p>	<p>Policy</p>
<p>Interviewee 1: Sometimes I feel like complaining but I don’t because I feel I will get the employees in trouble.</p> <p>Interviewee 2: Some employees don’t have a clue, but I don’t complain and I honestly don’t know</p>	<p>I usually don’t complain if the services are bad because services are provided by an Emirati employee</p>	<p>In general Arabs do not like to be criticized and feel that criticism is an insult to them. Criticism should start with praise and then be followed by indirect criticism with assurance of respect to the person being criticized (Nydell, 2006; Sivadas, Bruvold & Nelson, 2008b).(Sivadas, Bruvold & Nelson, 2008a)(Sivadas, Bruvold & Nelson, 2008a)</p>	<p>Other</p>

<p>why.</p> <p>Interviewee 3: Service are usually good at Al Waha however, if they were bad I might not complain.</p>			
<p>Interviewee 5: I feel with Al Waha employees because they are from the same nationality</p> <p>Interviewee 6: I am proud to be a UAE national and take offence if one of Al Waha employees are treated badly because they are UAE nationals as well</p>	<p>The well-being of Al Waha workers is important to me</p>	<p>The same item “The well-being of my coworkers is important to me” was asked on the horizontal collectivism part of a questionnaire conducted by Yoo & Donthu (2002) and Lee & Choi (2006). The same question was asked on a scale developed to measure differences among individuals using the four cultural dimensions, vertical and horizontal individualism and vertical and horizontal collectivism (Singelis <i>et al.</i>, 1995). The same question has been asked by Sivadas, Bruvold & Nelson (2008).</p>	Other
<p>Interviewee 3: I am pleased when employees of Al Waha are professional</p> <p>Interviewee 6: Polite employees make me feel happy.</p>	<p>I feel good when I receive good services from employees of Al Waha</p>	<p>The same question was asked “I feel good when I cooperate with others” in a questionnaire that included collectivism/individualism dimensions of culture in a four country assessment asked by Sivadas, Bruvold & Nelson (2008) and in a study by Singelis et al. (1995).</p>	Other

<p>Interviewee 3: UAE employees shouldn't be working as sales clerks.</p> <p>Interviewee 4: It is not necessary for UAE nationals to do labour work.</p> <p>Interviewee 6: Isn't there anyone else that can do the job besides Al Waha employees.</p>	<p>Customers feel that Al Waha employees have lower social status</p>	<p>There are some jobs that are not acceptable to Arabs and are seen as shocking or lowering of their social status (Nydell, 2006). Working in a shop is considered manual labor which is shameful for an Arab of upper class to engage in (Nydell, 2006). A closely related question was asked by Yoo & Donthu (2002) under the power distance dimension "People in higher positions should avoid social interaction with people in lower positions" (Yoo & Donthu, 2002, p.102).</p>	Other
<p>Interviewee 1: I think that some employees of Al Waha give discounts to their friends.</p> <p>Interviewee 2: Why do we find employees of Al Waha friendly with some of us and not friendly with others?</p> <p>Interviewee 3: What do we have to do to get the attention of the employees of Al Waha since we are always pleasant with them?</p>	<p>Employees of Al Waha give equal treatment to all customers</p>	<p>This question is the same as a question in a study by Karatepe, Yavas & Babakus (2005). This was used to see if employees give preferential treatment to customers whom they like or are friends with. Personal relations are important in the Arab world because they help in getting things done. In Arabic, this is called <i>Wasta</i> (Nydell, 2006). Another questionnaire conducted by Tsoukatos & Rand (2007) asked a similar question under the power distance dimension "Social inequalities should be minimized or even cease to exist" (Tsoukatos & Rand, 2007, p. 484).</p>	Other

<p>Interviewee 5: I think that employees of Al Waha in general are professional with customers.</p> <p>Interviewee 6: Sometimes employees of Al Waha are busy and we feel that they are not very professional when they are busy.</p>			
<p>Interviewee 2: Sometimes we have to stand in line for a long period to get served.</p> <p>Interviewee 3: Why doesn't Al Waha have cash tills to serve customers faster?</p> <p>Interviewee 4: Services of Al Waha are slow sometimes.</p> <p>Interviewee 5: Where are the employees of Al Waha when we need them?</p>	<p>There are no long queues in front of the cashier</p>	<p>This question is the same to a question in a study by Karatepe, Yavas & Babakus (2005). Another study found that one of the reasons of dissatisfaction with services are the long queues</p>	<p>Problem solving</p>
<p>Interviewee 1: I am not sure who are the employees of Al Waha.</p> <p>Interviewee 3: Why don't</p>	<p>Customers can easily identify Al Waha employees</p>	<p>Arabs, especially those of the upper-class, are concerned with the way they dress because it is a reflection of their wealth and social standing (Nydell, 2006).</p>	<p>Policy</p>

<p>they wear a uniform?</p> <p>Interviewee 4: Sometimes we spend time looking for the employees who can help us with products.</p> <p>Interviewee 6: I know that employees of Al Waha wear name badges but sometimes the badge is not displayed clearly.</p>			
<p>Interviewee 1: I am sick and tired of Al Waha emails.</p> <p>Interviewee 2: Al Waha emails are junk.</p> <p>Interviewee 4: Al Waha emails could be improved.</p> <p>Interviewee 5: Why does Al Waha have to send out so many emails.</p> <p>Interviewee 6: What is the purpose of these emails.</p>	Al Waha emails and advertisements attract customers	A study by Lee & Choi (2006) to understand the role of individualism and collectivism in web advertising used the same question which asked if the respondents liked the advertisement for prescription drugs. Another study found that the visual elements of advertisements influences the evaluation of service quality (Clow, et al, 2006).	Policy
<p>Interviewee 1: I feel some of Al Waha employees are pleasant.</p>	There is a warm relationship between employees of Al Waha	This question is the same as a question in a study by Wong (2004); and Karatepe, Yavas & Babakus (2005).	Other

<p>Interviewee 2: I became friends with some of Al Waha employees.</p> <p>Interviewee 3: Once you get to know Al Waha employees they become more helpful.</p> <p>Interviewee 4: I think that employees of Al Waha are not trained properly in customer service.</p> <p>Interviewee 5: Employees of Al Waha are UAE nationals like us and must be more friendly.</p> <p>Interviewee 6: Friendly employees in my opinion is good for the business.</p>	<p>and customers</p>		
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Appendix 4: The new modified RSQS scale

	RSQS original questionnaire by Dholkar	Retail Service Quality Dimension	Removed/ added after phase one of the study results	Changed to Or reason for removing
1	The store has modern-looking equipment and fixtures	Physical aspects	Changed to	Al Waha store has a modern look
2	The physical facilities at this store (such as fixtures and fittings) are visually appealing	Physical aspects	Changed to	The inside of Al Waha is neat
3	Materials associated with the store's service (such as shopping bags, catalogues or statements) are visually appealing	Physical aspects		
4	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms)	Physical aspects		
5	The store layout at this store makes it easy for customers to find what they need	Physical aspects		Al Waha layout makes it easy for customers to find what they need
6	The store layout at this store makes it easy for customers to move around in the store	Physical aspects		Al Waha layout makes it easy for customers to move around in the store

7	When the store promises to do something by a certain time, it will do so	Reliability		
8	This store provides its services at the time it promises to do so	Reliability		Al Waha provides its services at the time it promises to do so
9	This store performs the service right the first time	Reliability		Al Waha performs the service right the first time
10	This store has merchandise available when the customers want it	Reliability		Al Waha has product available when the customers want it
11	This store insists on error-free sales transactions and records	Reliability	Loading of less than 0.5 and cross listing. Changed to	Al Waha insists on accurate sales transactions
12	Employees in this store have the knowledge to answer customer's questions	Personal Interaction		Employees in Al Waha have the knowledge to answer customer's questions
13	The behavior of employees in this store instills confidence in customers	Personal Interaction	Changed to	The behavior of employees in Al Waha is professional with customers
14	Customers feel safe in their transactions with this store	Personal Interaction		
15	Employees in this store give prompt service to customers	Personal Interaction	Changed to Loading of	Employees in Al Waha give fast services to customers

			less than 0.5 and cross listing	
16	Employees in this store tell customers exactly when services will be performed	Personal Interaction		
17	Employees in this store are never too busy to respond to customer's request	Personal Interaction		Employees in Al Waha are never too busy to respond to customer's request
18	This store gives customers individual attention	Personal Interaction		Al Waha gives customers individual attention
19	Employees in this store are consistently courteous with customers	Personal Interaction	Cross listing Changed to	Employees of Al Waha serve customers in good manner (Karatepe, Yavas & Babakus, 2005)
20	Employees of this store treat customers courteously on the telephone	Personal Interaction		
21	This store willingly handles returns and exchanges	Problem Solving	Changed to	Al Waha willingly handles exchanges
22	When a customer has a problem, this store shows a sincere interest in solving it	Problem Solving		When a customer has a problem, Al Waha makes an effort in solving it
23	Employees of this store are able to handle customer complaints	Problem Solving		Employees in Al Waha are able to handle customer complaints immediately

	directly and immediately			
24	This store offers high quality merchandise	Policy		Al Waha offers high quality product
25	This store provides plenty of convenient parking for customers	Policy		
26	This store has operating hours convenient for all its customers	Policy		Al Waha has operating hours convenient for most of its customers
27	This store accepts most major credit cards	Policy		
28	This store offers its own credit card	Policy		
29		Personal interaction	Added	There is a warm relationship between employees of Al Waha and customers (similar to a question in Karatepe, Yavas & Babakus (2005) and similar to a question in a study by Wong (2004)
30		New	Added	Female customers feel more comfortable buying from female employees**
31		Policy	Added	Al Waha's policies on returns are clearly laid out*
32		Policy	Added	Al Waha offers branded products *
33		New	Added	I usually don't complain if the services are bad because services are provided by an Emirati employee

34		New	Added	The well-being of Al Waha workers is important to me
35		New	Added	I feel good when I receive good services from employees of Al Waha
36		New	Added	Customers feel that Al Waha employees have lower social status
37		New	Added	Employees of Al Waha give equal treatment to all customers (similar to a question in Karatepe, Yavas & Babakus (2005)
38	There are no long queues in front of the cashier	Problem solving	Added	There are no long queues in front of the cashier (similar to a question in Karatepe, Yavas & Babakus (2005)
39		Policy	Added	Customers can easily identify Al Waha employees
40		Policy	Added	Al Waha emails and advertisements attract customers

Appendix 5: Al Waha Service Quality Scale

Dear customer

I am a DBA student at Northumbria Business School. I am conducting research that will help improve level of service quality at Al Waha shop. I am interested in finding out the relationship between service quality, satisfaction, loyalty, frequency of visits and demographic information. Results of this study will help managers of Al Waha to provide quality services to their customers.

I would appreciate it if you would take 5-10 minutes of your time to complete the questionnaire. Rest assured that your answers are confidential and will be used for research purposes and to give input to Al Waha managers. Do not write your name on this form or any identifying remarks.

This questionnaire consists of three parts. Please help us to improve Al Waha services by completing this survey.

Thank you very much for your co-operation.

Part I: Directions: Circle the most appropriate answer in questions 1-5

How old are you?	15-20	21-26	Other	
Gender	Female	Male		
Marital status	Single	Married	Other	
Educational Level	Diploma	Higher Diploma	Bachelor degree	Other
Monthly Family Income level	Below 10,000 AED	10,000-20,000	20,001-30,000	Above 30,000

Part II: Directions: Circle the number following each response that describes the way you feel

Rating scale:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

1. Al Waha store has a modern look	1	2	3	4	5
2. The inside of Al Waha is neat	1	2	3	4	5
3. Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing	1	2	3	4	5
4. Al Waha should offer its own public areas (Restrooms, fitting rooms) that are clean, attractive, and convenient	1	2	3	4	5
5. Al Waha layout makes it easy for customers to find what they need	1	2	3	4	5
6. Al Waha layout makes it easy for customers to move around in the store	1	2	3	4	5
7. When Al Waha promises to do something by a certain time, it will do so	1	2	3	4	5
8. Al Waha performs the services right the first time	1	2	3	4	5
9. Al Waha has product available when the customers want it	1	2	3	4	5

10. Customers feel safe in their transactions with Al Waha	1	2	3	4	5
11. Employees in Al Waha give fast services to customers	1	2	3	4	5
12. Employees in Al Waha tell customers exactly when services will be performed	1	2	3	4	5
13. Employees in Al Waha are never too busy to respond to customer's request	1	2	3	4	5
14. Al Waha gives customers individual attention	1	2	3	4	5
15. Employees of Al Waha are consistently courteous with customers	1	2	3	4	5
16. When a customer has a problem, Al Waha makes an effort in solving it	1	2	3	4	5
17. Employees in Al Waha are able to solve customers' problems immediately	1	2	3	4	5
18. There are no long queues in front of the cashier	1	2	3	4	5
19. Al Waha offers high quality products	1	2	3	4	5
20. Al Waha should accept most major credit cards	1	2	3	4	5
21. Al Waha should offer its own credit cards	1	2	3	4	5
22. Al Waha's policies on returns are clearly laid out	1	2	3	4	5
23. Customers can easily identify Al Waha employees	1	2	3	4	5
24. Al Waha emails and advertisements attract customers	1	2	3	4	5
25. The well-being of Al Waha employees is important to me	1	2	3	4	5
26. I feel good when I receive good services from employees of Al Waha	1	2	3	4	5
27. Employees of Al Waha give equal treatment to all customers	1	2	3	4	5
28. There is a warm relationship between employees of Al Waha and customers	1	2	3	4	5

Part III: Directions: Circle the number following each response that describes the way you feel

5. Overall, how would you rate the quality of service you received in Al Waha
 - a. very poor
 - b. poor
 - c. good
 - d. very good
 - e. excellent

6. How likely is it that you would recommend Al Waha to a friend or colleague
 - a. extremely unlikely
 - b. unlikely
 - c. neither likely nor unlikely
 - d. likely
 - e. extremely likely

7. Overall, how satisfied are you with Al Waha services
 - a. extremely dissatisfied
 - b. dissatisfied
 - c. neither satisfied nor dissatisfied
 - d. satisfied
 - e. extremely satisfied

8. How often do you visit Al Waha
 - a. very rarely
 - b. rarely
 - c. sometimes
 - d. often
 - e. very often

Thank you for your time.

Appendix 6: Mean and standard deviation for all items of Al Waha service quality scale dimensions

	Mean	S.D
There is a warm relationship between employees of Al Waha and customers	4.17	.911
I feel good when I receive good services from employees of Al Waha	4.14	.958
Employees of Al Waha give equal treatment to all customers	4.09	.931
The inside of Al Waha is neat	4.08	.975
Al Waha layout makes it easy for customers to move around in the store	4.07	.912
Employees in Al Waha give fast services to customers	4.05	.946
Al Waha should accept most major credit cards	4.04	.987
The well-being of Al Waha employees is important to me	4.02	.967
Al Waha gives customers individual attention	3.99	.906
Al Waha layout makes it easy for customers to find what they need	3.97	.980
Al Waha performs the services right the first time	3.96	.967
Al Waha store has a modern look	3.91	1.000
Employees in Al Waha tell customers exactly when services will be performed	3.90	.957
Employees in Al Waha are never too busy to respond to customer's request	3.89	1.031
When a customer has a problem, Al Waha makes an effort in solving it	3.89	.957
Materials associated with Al Waha's services (such as shopping bags, catalogues or statements) are visually appealing	3.88	.973
Employees in Al Waha are able to solve customers' problems immediately	3.88	.970
Al Waha should offer its own credit cards	3.87	1.079

When Al Waha promises to do something by a certain time, it will do so	3.84	.938
Al Waha's policies on returns are clearly laid out	3.81	1.115
Customers can easily identify Al Waha employees	3.81	1.172
Al Waha has product available when the customers want it	3.68	1.090

Appendix 7: Correlation, regression equation and regression analysis results

Correlation analysis

Correlation analysis was performed to test the strength of the association between the independent variables before performing regression analysis. As discussed in chapter 5 the strength of the relationship between the independent variables should not be higher than 0.90. Also, some correlation should exist between the dependent variable and the independent variables. **Table 7.1** shows that the independent variables are not highly correlated and shows that there are some correlations between the dependent variable (overall service quality) and the independent variables (ASQS dimensions).

Table 7.1: Correlation analysis between ASQS dimensions and overall service quality

Correlations						
		Interaction Quality	Physical Aspects	Caring and Commitment	Policy	Overall Quality
Interaction Quality	Pearson correlation	1	.688**	.701**	.563**	.403**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	424	424	424	424	423
Physical Aspects	Pearson correlation	.688**	1	.570**	.445**	.355**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	424	424	424	424	423
Caring and Commitment	Pearson correlation	.701**	.570**	1	.486**	.338**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	424	424	424	424	423
Policy	Pearson correlation	.563**	.445**	.486**	1	.266**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	424	424	424	424	423
Overall Quality	Pearson correlation	.403**	.355**	.338**	.266**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	423	423	423	423	423

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7.2 shows that the independent variables are not highly correlated and shows that there are some correlations between the dependent variable (satisfaction) and the independent variables (ASQS dimensions).

Table 7.2: Correlation analysis between ASQS dimensions and satisfaction

Correlations						
		Interaction Quality	Physical Aspects	Caring and Commitment	Policy	Satisfied
Interaction Quality	Pearson correlation	1	.688**	.701**	.563**	.421**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	424	424	424	424	424
Physical Aspects	Pearson correlation	.688**	1	.570**	.445**	.316**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	424	424	424	424	424
Caring and Commitment	Pearson correlation	.701**	.570**	1	.486**	.378**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	424	424	424	424	424
Policy	Pearson correlation	.563**	.445**	.486**	1	.277**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	424	424	424	424	424
Satisfied	Pearson correlation	.421**	.316**	.378**	.277**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	424	424	424	424	424

**. Correlation is significant at the 0.01 level (2-tailed).

Table 7.3 shows that the independent variables are not highly correlated and shows that there are some correlations between the dependent variable (loyalty) and the independent variables (ASQS dimensions).

Table 7.3: Correlation analysis between ASQS dimensions and loyalty

Correlations						
		Interaction Quality	Physical Aspects	Caring and Commitment	Policy	Satisfied
Interaction Quality	Pearson correlation	1	.688**	.701**	.563**	.421**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	424	424	424	424	424
Physical Aspects	Pearson correlation	.688**	1	.570**	.445**	.316**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	424	424	424	424	424
Caring and Commitment	Pearson correlation	.701**	.570**	1	.486**	.378**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	424	424	424	424	424
Policy	Pearson correlation	.563**	.445**	.486**	1	.277**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	424	424	424	424	424
Loyalty	Pearson correlation	.421**	.316**	.378**	.277**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	424	424	424	424	424

** . Correlation is significant at the 0.01 level (2-tailed).

Regression analysis

According to Tabachnick & Fidell (2007) the multiple regression equation is

$$Y = A + B_1X_1 + B_2X_2 + B_3 X_3 + \dots B_kX_k$$

Y is the dependent variable

A is the Y intercept which means the value of Y when all the X values are zero

X is the independent variable

B is the coefficient of the independent variable

Overall Quality = 1.92 + 0.294 Interaction quality + 0.159 Physical aspects + 0.091 Caring and commitment + 0.038 Policy

Satisfaction = 1.847 + 0.341 Interaction quality + 0.023 Physical aspects + 0.169 Caring and commitment + 0.036 Policy

Loyalty = 2.125 + 0.214 Interaction quality + 0.059 Physical aspects + 0.155 Caring and commitment + 0.081 Policy

An enter method multiple regression analysis was performed to test the relationship between the dependent variable, overall service quality, on the independent variables, interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 7.4** below.

Table 7.4: Regression analysis when overall service quality is the dependent variable

Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.916	.250		7.667	.000
Interaction Quality	.294	.092	.237	3.185	.002
Physical Aspects	.159	.075	.131	2.114	.035
Caring and Commitment	.091	.072	.080	1.257	.209
Policy	.038	.056	.037	.673	.501

a. Dependent Variable: overall quality

An enter method multiple regression analysis was performed to test the relationship between the dependent variable, satisfaction, on the independent variables, interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 7.5** below.

Table 7.5: Regression analysis when satisfied is the dependent variable

Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.847	.242		7.621	.000
Interaction Quality	.341	.090	.281	3.810	.000
Physical Aspects	.023	.073	.020	.318	.751
Caring and Commitment	.169	.070	.152	2.412	.016
Policy	.036	.055	.036	.662	.508

a. Dependent Variable: satisfied

An enter method multiple regression analysis was performed to test the relationship between the dependent variable, loyalty on the independent variables, interaction quality, physical aspects, caring and commitment, and policy. The results are shown in **Table 7.6** below.

Table 7.6: Regression analysis when loyalty is the dependent variable

Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.125	.261		8.142	.000
Interaction Quality	.214	.097	.170	2.222	.027
Physical Aspects	.059	.079	.048	.753	.452
Caring and Commitment	.155	.076	.134	2.049	.041
Policy	.081	.059	.077	1.371	.171

a. Dependent Variable: recommend